

File No. 160348

Committee Item No. 2

Board Item No. _____

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee: Budget & Finance Committee

Date May 25, 2016

Board of Supervisors Meeting

Date _____

Cmte Board

<input type="checkbox"/>	<input type="checkbox"/>	Motion
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Resolution
<input type="checkbox"/>	<input type="checkbox"/>	Ordinance
<input type="checkbox"/>	<input type="checkbox"/>	Legislative Digest
<input type="checkbox"/>	<input type="checkbox"/>	Budget and Legislative Analyst Report
<input type="checkbox"/>	<input type="checkbox"/>	Youth Commission Report
<input type="checkbox"/>	<input type="checkbox"/>	Introduction Form
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Department/Agency Cover Letter and/or Report
<input type="checkbox"/>	<input type="checkbox"/>	MOU
<input type="checkbox"/>	<input type="checkbox"/>	Grant Information Form
<input type="checkbox"/>	<input type="checkbox"/>	Grant Budget
<input type="checkbox"/>	<input type="checkbox"/>	Subcontract Budget
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Contract/Agreement
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form 126 – Ethics Commission
<input type="checkbox"/>	<input type="checkbox"/>	Award Letter
<input type="checkbox"/>	<input type="checkbox"/>	Application
<input type="checkbox"/>	<input type="checkbox"/>	Public Correspondence

OTHER (Use back side if additional space is needed)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Modesto City Council Resolution</u>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>PUC Resolution</u>
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____
<input type="checkbox"/>	<input type="checkbox"/>	_____

Completed by: Linda Wong Date May 20, 2016

Completed by: Linda Wong Date _____

1 [Real Property Sale - Easement to JWG McHenry, LLC, and City of Modesto - Portion of San
2 Francisco Public Utilities Commission Parcel 656, Modesto, Stanislaus County - \$35,000]

3 **Resolution approving and authorizing the conveyance of one permanent easement to**
4 **the City of Modesto, for \$35,000 to be paid by JWG McHenry, LLC, a California limited**
5 **liability company, to allow JWG McHenry, LLC, to widen a portion of McHenry Avenue,**
6 **including installing street, curb, gutter, driveway, and sidewalk improvements within an**
7 **approximately 3,627 square foot portion of property owned by the City under the**
8 **jurisdiction of the San Francisco Public Utilities Commission, identified as SFPUC**
9 **Parcel 656; adopting findings that the conveyance is consistent with the General Plan,**
10 **and the eight priority policies of Planning Code, Section 101.1; adopting findings under**
11 **the California Environmental Quality Act (CEQA), CEQA Guidelines, and Administrative**
12 **Code, Chapter 31; adopting findings under Administrative Code, Section 23.3, that**
13 **offering the easement for sale through competitive bidding would be impractical; and**
14 **authorizing the Director of Property and/or the SFPUC General Manager to execute**
15 **documents, make certain modifications, and take certain actions in furtherance of this**
16 **Resolution.**

17
18 WHEREAS, The City owns in fee certain real property under the jurisdiction of the San
19 Francisco Public Utilities Commission ("SFPUC") designated as SFPUC Parcel 656 ("SFPUC
20 Property") adjacent to State Highway 108 (also known as McHenry Avenue) in the City of
21 Modesto, Stanislaus County; and

22 WHEREAS, The SFPUC Property is a portion of SFPUC's right of way for subsurface
23 water transmission pipelines and overhead electrical power transmission lines and towers;
24 and
25

1 WHEREAS, JWG McHenry, LLC ("Developer") owns land bordering the SFPUC
2 Property on both its northern and southern sides, totaling approximately 6.17 acres (the
3 "McHenry Property"), which Developer intends to develop; and

4 WHEREAS, As a condition of its approval of Developer's plans to develop the McHenry
5 Property ("McHenry Project"), the City of Modesto ("Modesto") required Developer to widen
6 McHenry Avenue between Claratina and Grecian Avenues, including installing street, curb,
7 gutter, and sidewalk improvements ("Improvements") within an approximately 3,627 square
8 foot portion of the SFPUC Property ("Easement Area"); and

9 WHEREAS, SFPUC agreed to allow the Developer to construct the Improvements
10 within the Easement Area at the Developer's expense under a revocable license agreement
11 and to recommend that City convey an easement to Modesto or another responsible public
12 agency for roadway and sidewalk use ("Easement") subject to the following conditions
13 ("SFPUC Conditions"): (i) the Improvements must include a protective cap ("Bridge") over the
14 SFPUC subsurface water transmission pipelines; (ii) the Easement must be conveyed in an
15 agreement in form acceptable to City, reserving the SFPUC's right to use the Easement Area
16 for uses that are compatible with the Easement; (iii) Modesto or another responsible public
17 agency must accept ownership of the Improvements and responsibility for maintenance and
18 repair; and (iv) City must receive payment for the fair market value of the Easement; and

19 WHEREAS, San Francisco Charter, Section 8B.121(a) grants the SFPUC Commission
20 the exclusive charge of the real property assets under the Commission's jurisdiction, Charter
21 Section 8B.121(e) provides that the Commission may transfer real property interests the
22 Commission declares to be surplus to the needs of any utility, and Charter, Section 9.118(c)
23 provides that any sale of real property owned by the City must be approved in advance by the
24 Board of Supervisors; and

1 WHEREAS, Modesto is responsible for maintenance and repair of McHenry Avenue
2 under an agreement with the State of California Department of Transportation ("Caltrans"),
3 and Caltrans has approved the Improvements but declined to accept the proposed Easement;
4 and

5 WHEREAS, SFPUC staff, through consultation with the Director of Property and the
6 Office of the City Attorney, have negotiated with Developer a proposed Agreement for Sale of
7 Real Estate ("Sale Agreement"), a copy of which is on file with the Clerk of the Board of
8 Supervisors under File No. 160348, which is incorporated herein by this reference, by which
9 Developer would agree to pay as the purchase price for the Easement the appraised fair
10 market value of \$35,000, and City would agree to convey the Easement to Modesto via an
11 easement agreement in form attached to the Sale Agreement ("Easement Agreement"); and

12 WHEREAS, SFPUC staff and Modesto have negotiated the proposed terms and
13 conditions of the Easement Agreement by which Modesto would accept ownership of the
14 Improvements, including the Bridge, and responsibility for operation, maintenance and repair
15 of the Improvements, and City would convey to Modesto an easement for street and sidewalk
16 improvements and use; and

17 WHEREAS, By Resolution No. 2015-166 adopted on May 26, 2015, Modesto's City
18 Council approved the Easement Agreement, and Modesto has executed and delivered the
19 Easement Agreement, a copy of which is on file with the Clerk of the Board of Supervisors
20 under File No. 160348, which is incorporated herein by this reference; and

21 WHEREAS, The San Francisco Planning Department on October 15, 2015, found the
22 proposed conveyance of the Easement to be consistent with the General Plan, and eight
23 priority policies of Planning, Section 101.1 ("General Plan Findings"), a copy of which is on file
24 with the Clerk of the Board of Supervisors under File No. 160348, which is incorporated herein
25 by this reference; and

1 WHEREAS, On July 14, 2015, by SFPUC Resolution No. 15-0156 ("SFPUC
2 Resolution"), a copy of which is on file with the Clerk of the Board of Supervisors under File
3 No. 160348, which is incorporated herein by this reference, the SFPUC Commission found
4 that the Easement was surplus to the needs of any utilities under SFPUC's jurisdiction,
5 provided that the SFPUC Conditions were met; found that offering the Easement for sale by
6 competitive bidding would be impractical; approved the terms and conditions of the Sale
7 Agreement and Easement Agreement; and authorized the SFPUC General Manager and/or
8 the City Director of Property, following Board of Supervisors approval, to execute such
9 agreements and make certain modifications and take certain action in furtherance of such
10 resolution; and

11 WHEREAS, Modesto, acting as lead agency under the California Environmental
12 Quality Act (Cal. Pub. Res. Code, Section 21000 et seq., hereinafter "CEQA"), and the State
13 CEQA Guidelines (Cal. Admin. Code, Title 14, Section 15000 et seq., (hereinafter "CEQA
14 Guidelines"), for the City of Modesto Urban Area General Plan ("General Plan") certified a
15 Master Environmental Impact Report ("Master EIR") on October 14, 2008 (State
16 Clearinghouse No. 2007072023); and

17 WHEREAS, In conjunction with the approval of the General Plan by Modesto City
18 Council Resolution No. 2008-582, Modesto adopted CEQA Findings ("Modesto CEQA
19 Findings"), including: (1) the adoption of a statement of findings of significant impacts and
20 incorporation into General Plan policies mitigation measures identified in the Master EIR to
21 mitigate, avoid or limit impacts; (2) the adoption of a statement of overriding considerations;
22 and (3) the rejection of alternatives; and

23 WHEREAS, As provided by CEQA, Section 21157.1, Modesto prepared a Finding of
24 Conformance to General Plan Master EIR: Initial Study Environmental Checklist Community
25 and Economic Development 2013-015 for the Proposed Claratina Avenue Automotive

1 Dealerships, dated May 29, 2013 ("Finding of Conformance") and issued the Finding of
2 Conformance on August 12, 2013, determining that the McHenry Project will have no
3 additional significant effect on the environment, as defined in subdivision (d) of Section 21158
4 of the Public Resources Code, that was not identified in the Master EIR; no new or additional
5 mitigation measures or alternatives are required; the McHenry Project is within the scope of
6 the project covered by the Master EIR; and all applicable policies, regulations, and mitigation
7 measures identified in the Master EIR have been applied to the McHenry Project or otherwise
8 made conditions of approval of the Project; and

9 WHEREAS, On December 10, 2013, Modesto approved the McHenry Project
10 ("Administrative Approval") , subject to conditions, including the requirement to comply with
11 mitigation measures from the Master EIR applicable to the McHenry Project; and

12 WHEREAS, The Master EIR, the Modesto CEQA Findings, the Finding of
13 Conformance, and the Administrative Approval have been made available for review by the
14 Board and the public, are a part of the record of this approval by the Board, and are available
15 for public review at the SFPUC Real Estate Services Division, 525 Golden Gate Avenue, 10th
16 Floor, which is the custodian of records for the requested permanent Easement and are on file
17 with the Clerk of the Board of Supervisors under File No. 160348; and

18 WHEREAS, The Board, acting as a responsible agency under CEQA, has considered
19 the Master EIR, the Modesto CEQA Findings, the Finding of Conformance for the McHenry
20 Project, and the Administrative Approval, including the environmental effects of the McHenry
21 Project set forth in said documents; and

22 WHEREAS, The Master EIR is available for public review with the Modesto City Clerk,
23 who is the custodian of records; now, therefore, be it

24 RESOLVED, That the Board adopts as its own and incorporates by reference as
25 though fully set forth herein the findings in the SFPUC Resolution, pursuant to Administrative

1 Code, Section 23.3, that offering the Easement for sale by competitive bidding process would
2 be impractical; and, be it

3 FURTHER RESOLVED, That the Board adopts as its own and incorporates by
4 reference as though fully set forth herein the General Plan Findings; and, be it

5 FURTHER RESOLVED, The Board acting as a responsible agency under CEQA
6 hereby adopts and incorporates by reference as though fully set forth herein all findings made
7 pursuant to CEQA set forth in the prior Modesto CEQA Findings, including findings under
8 CEQA Guidelines Sections 15091 and 15093; the Finding of Conformance; and the
9 Administrative Approval that no further environmental review is needed beyond the Master
10 EIR and Finding of Conformance to approve the McHenry Project; and, be it

11 FURTHER RESOLVED, The Modesto CEQA Findings, including without limitation, the
12 statement of overriding considerations, and statement of findings of significant impacts and
13 incorporation into General Plan policies mitigation measures identified in the Master EIR to
14 mitigate, avoid or limit impacts, is a part of the record of this approval and may be found in
15 Board File No. 160348; and, be it

16 FURTHER RESOLVED, The Board finds that this approval is within the scope of the
17 McHenry Project and activities evaluated in the Master EIR and the Finding of Conformance;
18 and, be it

19 FURTHER RESOLVED, The Board further finds that since the Master EIR, Finding of
20 Conformance, and Administrative Approval were finalized, there have been no substantial
21 changes in the McHenry Project and no substantial changes in project circumstances that
22 would require major revisions to the Master EIR due to the involvement of new significant
23 environmental effects or an increase in the severity of previously identified significant impacts,
24 and there is no new information of substantial importance that would change the conclusions
25 set forth in the FEIR, Finding of Conformance and Administrative Approval; and, be it

1 FURTHER RESOLVED, The Board has not identified any feasible alternative or
2 additional feasible mitigation measures within its powers that would substantially lessen or
3 avoid any significant effect the McHenry Project would have on the environment; and, be it

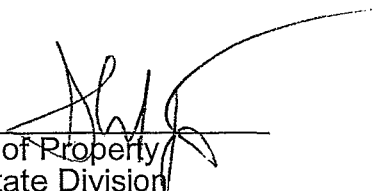
4 FURTHER RESOLVED, Modesto has already incorporated mitigation measures into
5 the McHenry Project by the Administrative Approval, and the Board has no direct authority to
6 implement the mitigation measures; and, be it

7 FURTHER RESOLVED, That in accordance with the recommendations of the Public
8 Utilities Commission and the Director of Property, the Board of Supervisors approves the Sale
9 Agreement and the sale transaction contemplated therein and authorizes the Director of
10 Property and/or the SFPUC's General Manager, in the name and on behalf of the City and
11 County of San Francisco, to execute the Sale Agreement and Easement Agreement in
12 substantially the form presented to the Board and to take any and all steps (including, but not
13 limited to, the execution and delivery of any and all certificates, agreements, notices,
14 consents, escrow instructions, closing documents, and other instruments or documents) as
15 the Director of Property or SFPUC General Manager deems necessary or appropriate in order
16 to consummate the sale of the Easement pursuant to the Sale Agreement, or to otherwise
17 effectuate the purpose and intent of this resolution, such determination to be conclusively
18 evidenced by the execution and delivery by the Director of Property and/or SFPUC General
19 Manager of any such documents; and, be it

20 FURTHER RESOLVED, That the Board of Supervisors authorizes the Director of
21 Property and/or the SFPUC General Manager, in the name and on behalf of the City and
22 County of San Francisco, to enter into any additions, amendments or other modifications to
23 the Sale Agreement (including the attached exhibits) and any other documents or instruments
24 in connection with the Sale Agreement that the Director of Property or SFPUC General
25 Manager determines are in City's best interest, do not materially decrease City's benefits or

1 materially increase the City's liabilities or obligations in connection with the proposed sale
2 transaction or Easement, and are necessary and advisable to complete the proposed sale
3 transaction and effectuate the purpose and intent of this resolution, such determination to be
4 conclusively evidenced by the execution and delivery by the Director of Property or SFPUC
5 General Manager of any such additions, amendments, or other modifications.
6
7
8
9

10 RECOMMENDED:

11
12 
13 _____
14 Director of Property
Real Estate Division

15 RECOMMENDED:

16
17 
18 _____
19 General Manager
San Francisco Public Utilities Commission
20 n:\egana\as2016\1600348\01077257.docx
21
22
23
24
25

AGREEMENT FOR SALE OF REAL ESTATE

by and between

CITY AND COUNTY OF SAN FRANCISCO,

and

JWG MCHENRY, LLC,

For the sale and purchase of an

Easement in a Portion of SFPUC Parcel 656,
Modesto, California

_____, 20__

TABLE OF CONTENTS

	<u>Page</u>
1. SALE AND PURCHASE	2
1.1 Property Included in Sale	2
2. PURCHASE PRICE	2
3. TITLE 2	
3.1 Conditions of Title	2
3.2 Buyer's Responsibility for Title Insurance	3
4. "AS-IS" PURCHASE; RELEASE OF CITY	3
4.1 Buyer's Independent Investigation	3
4.2 Property Disclosures	4
4.3 "As-Is" Purchase	4
4.4 Release of City	5
5. CONDITIONS PRECEDENT	6
5.1 McHenry's Conditions Precedent	6
5.2 Failure of McHenry's Conditions Precedent	6
5.3 City's Conditions Precedent	6
5.4 Failure of City's Conditions Precedent	6
6. ESCROW AND CLOSING	7
6.1 Escrow	7
6.2 Closing Date	7
6.3 Deposit of Documents	7
6.4 Prorations	8
6.5 Closing without Escrow.	8
7. RISK OF LOSS	8
7.1 Loss	8
7.2 Self-Insurance	9
8. EXPENSES	9
8.1 Expenses	9
8.2 Brokers	9
9. INTENTIONALLY OMITTED	9
10. GENERAL PROVISIONS	9
10.1 Notices	9

10.2	Successors and Assigns	10
10.3	Amendments	10
10.4	McHenry's Representations and Warranties	10
10.5	Governing Law	11
10.6	Merger of Prior Agreements	11
10.7	Parties and Their Agents	11
10.8	Interpretation of Agreement	11
10.9	Attorneys' Fees	12
10.10	Time of Essence	12
10.11	No Merger	12
10.12	Non-Liability of City Officials, Employees and Agents	12
10.13	Conflicts of Interest	12
10.14	Notification of Limitations on Contributions	13
10.15	Sunshine Ordinance	13
10.16	Tropical Hardwood and Virgin Redwood Ban	13
10.17	MacBride Principles - Northern Ireland	13
10.18	No Recording	14
10.19	Effective Date	14
10.20	Severability	14
10.21	Counterparts	14
10.22	Cooperative Drafting.	14

LIST OF EXHIBITS

EXHIBIT A	DESCRIPTION OF PROPERTY
EXHIBIT B	PLAT OF PROPERTY
SCHEDULE 1	PROPERTY DISCLOSURES
EXHIBIT C	FORM OF EASEMENT AGREEMENT

AGREEMENT FOR SALE OF REAL ESTATE

(Portion of SFPUC Parcel 656, Modesto)

THIS AGREEMENT FOR SALE OF REAL ESTATE (this "**Agreement**") dated for reference purposes only as of _____, 2015, is by and between the CITY AND COUNTY OF SAN FRANCISCO, a municipal corporation ("**City**" or "**Seller**"), acting through its Public Utilities Commission ("**SFPUC**") and JWG McHENRY, LLC, a California limited liability company ("**McHenry**").

THIS AGREEMENT IS MADE WITH REFERENCE TO THE FOLLOWING FACTS AND CIRCUMSTANCES:

A. City owns the Property located in the City of Modesto, Stanislaus County, California, described in attached **Exhibit A** and shown on attached **Exhibit B** (the "**Property**" or "**Easement Area**"). The Property is a portion of the parcel known in SFPUC records as SFPUC Parcel 656 and consists of land improved with SFPUC's overhead high voltage power lines and underground water transmission pipelines.

B. McHenry owns real property on either side of Parcel 656 ("**McHenry's Property**"), which McHenry is developing for automobile dealership and other purposes.

C. The Property and McHenry's Property abut McHenry Avenue. In connection with McHenry's development, the City of Modesto ("Modesto") is requiring that McHenry make certain improvements to McHenry Avenue, including widening the road to include street, curb and gutter improvements on the surface of the Property.

D. City is willing to permit such use of the Property, provided that, among other conditions, Modesto accepts ownership of the improvements and accepts an easement in the Property for such use (the "**Easement**") in the form of the Easement Deed and Agreement attached as **Exhibit C** (the "**Easement Agreement**") and City receives compensation for the value of the Easement.

E. By Resolution No. 2015-166, adopted on May 26, 2015, the City Council of Modesto approved the Easement Agreement. Modesto has executed the Easement Agreement and delivered the notarized, executed original to SFPUC.

F. Prior to McHenry's and City's execution of this Agreement, City, Caltrans and Modesto each approved the plans for the proposed improvements, including a subsurface structural bridge.

G. Concurrently with McHenry's execution of this Agreement, City and McHenry executed a license agreement (the "**McHenry Avenue Improvement License**") to allow McHenry to construct the improvements while SFPUC staff is seeking approval of the Easement Agreement from City's Public Utilities Commission, Board of Supervisors and Mayor. If not sooner revoked, such license agreement will terminate automatically upon the recording of the Easement Agreement.

H. Offering the Easement for sale by competitive bidding is impractical for a number of reasons. Given the dimensions and location of the Property along McHenry Avenue and the

presence of SFPUC's overhead high voltage lines and subsurface water transmission pipelines, the highest and best use of the surface of the Easement Area is for street and sidewalk improvements, and Modesto, Caltrans and McHenry are the only potential purchasers of an easement for that purpose. SFPUC staff negotiated with Caltrans, and that agency declined to acquire the Property or an easement in the Property for the road widening. Further, McHenry is willing to pay full appraised value as consideration for Modesto's acquisition of the Easement, and Modesto has the power to acquire property by eminent domain.

I. Modesto is willing to acquire the Easement, McHenry is willing to pay for Modesto's acquisition of the Easement, and City is willing to sell the Easement, subject to approval by City's Public Utilities Commission, Board of Supervisors and Mayor, on the terms and conditions set forth in this Agreement.

ACCORDINGLY, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, City and McHenry hereby agree as follows:

1. SALE AND PURCHASE

1.1 Property Included in Sale

Subject to the terms, covenants and conditions set forth herein, City agrees to convey the Easement to Modesto, and Buyer agrees to compensate City for the conveyance of the Easement.

2. PURCHASE PRICE

The purchase price for the Easement is Thirty-five Thousand Dollars (\$35,000) (the "**Purchase Price**"). McHenry shall pay the Purchase Price as follows:

(a) Within five (5) business days after the date this Agreement is executed by the parties hereto, McHenry shall deposit the sum of Five Thousand Dollars (\$5,000) as an earnest money deposit (the "**Deposit**"). If the parties elect to consummate this sale through an escrow, McHenry shall deliver the Deposit in escrow with Chicago Title Insurance Company, 455 Market Street, Suite 2100, San Francisco, CA 94105 (the "**Title Company**"); otherwise, McHenry shall deliver the Deposit to the City in care of SFPUC's Real Estate Director at SFPUC's address for notices in **Section 10.1**. The Deposit shall be held in an interest-bearing account, and all interest thereon shall be deemed a part of the Deposit. At the Closing (as defined below) the Deposit shall be paid to City and credited against the Purchase Price.

(b) McHenry shall pay the balance of the Purchase Price, which is Thirty Thousand Dollars (\$30,000), to City at the consummation of the purchase and sale contemplated hereunder (the "**Closing**").

All sums payable hereunder including, without limitation, the Deposit, shall be paid in immediately available funds of lawful money of the United States of America.

3. TITLE

3.1 Conditions of Title

At the Closing, City shall convey the Easement to Modesto by executing, delivering and recording the Easement Agreement. Title to the Easement shall be subject to (a) liens of local

real estate taxes and assessments, (b) all existing exceptions and encumbrances, whether or not disclosed by a current preliminary title report or the public records or any other documents reviewed by McHenry or Modesto (together, "Buyer") pursuant to Section 5.1 hereof, and any other exceptions to title that would be disclosed by an accurate and thorough investigation, survey, or inspection of the Property, and (c) all items of which Buyer has actual or constructive notice or knowledge. All of the foregoing exceptions to title shall be referred to collectively as the "Conditions of Title."

McHenry acknowledges that City and Modesto Irrigation District ("MID") entered into Revocable License #P4280, dated December 17, 2014, which authorized MID to install and operate a six-inch diameter subsurface conduit beneath City's water transmission pipelines in Parcel 656 and a 12,000 volt electrical distribution circuit within the conduit

3.2 Buyer's Responsibility for Title Insurance

McHenry understands and agrees that the right, title and interest in the Easement shall not exceed that vested in City, and City is under no obligation to furnish any policy of title insurance in connection with this transaction. McHenry recognizes that any fences or other physical monument of the Property's boundary lines may not correspond to the legal description of the Easement Area. City shall not be responsible for any discrepancies in the parcel area or location of the property lines or any other matters that an accurate survey or inspection might reveal. It is McHenry's and Modesto's sole responsibility to obtain a survey from an independent surveyor and a policy of title insurance from a title company, if desired.

4. "AS-IS" PURCHASE; RELEASE OF CITY

4.1 Buyer's Independent Investigation

McHenry represents and warrants to City that Buyer has performed a diligent and thorough inspection and investigation of each and every aspect of the Property, either independently or through agents of Buyer's choosing, including, without limitation, the following matters (collectively, the "**Property Conditions**"):

(a) All matters relating to title including, without limitation, the existence, quality, nature and adequacy of City's interest in the Property and the existence of physically open and legally sufficient access to the Property.

(b) The zoning and other legal status of the Property, including, without limitation, the compliance of the Property or its operation with any applicable codes, laws, regulations, statutes, ordinances and private or public covenants, conditions and restrictions, and all governmental and other legal requirements such as taxes, assessments, use permit requirements and building and fire codes.

(c) The quality, nature, adequacy and physical condition of the Property.

(d) The quality, nature, adequacy, and physical, geological and environmental condition of the Property (including soils and any groundwater), and the presence or absence of any Hazardous Material in, on, under or about the Property or any other real property in the vicinity of the Property. As used in this Agreement, "**Hazardous Material**" shall mean any

material that, because of its quantity, concentration or physical or chemical characteristics, is now or hereafter deemed by any federal, state or local governmental authority to pose a present or potential hazard to human health or safety or to the environment.

(e) Any license agreement between City and McHenry relating to McHenry's performing street widening improvements and/or other improvements in connection with development of JWG McHenry's real property abutting McHenry Avenue and City's property.

(e) The suitability of the Easement Area for Modesto's intended uses. McHenry represents and warrants that Modesto's intended use of the Easement Area is for public street, curb and sidewalk use.

(f) The economics and development potential, if any, of the Easement Area.

(g) All other matters of material significance affecting the Easement Area.

4.2 Property Disclosures

California law requires sellers to disclose to buyers the presence or potential presence of certain Hazardous Material. Accordingly, McHenry is hereby advised that occupation of the Easement Area may lead to exposure to electromagnetic fields and Hazardous Material such as, but not limited to, gasoline, diesel and other vehicle fluids, vehicle exhaust, and construction materials containing chemicals. By execution of this Agreement, McHenry acknowledges that the notices and warnings set forth above satisfy the requirements of California Health and Safety Code Section 25359.7 and related statutes.

McHenry acknowledges that City has disclosed the matters relating to the Easement Area referred to in Schedule 1 attached hereto. Nothing contained in such schedule shall limit any of the provisions of this Article or relieve McHenry and Modesto of their responsibility to conduct a diligent inquiry hereunder, nor shall any such matters limit any of the provisions of Section 4.3 ["As-Is" Purchase] or Section 4.4 [Release of City].

4.3 "As-Is" Purchase

MCHENRY SPECIFICALLY ACKNOWLEDGES AND AGREES THAT CITY IS SELLING AND MCHENRY IS PURCHASING THE EASEMENT ON AN "AS-IS WITH ALL FAULTS" BASIS. MCHENRY IS RELYING SOLELY ON ITS INDEPENDENT INVESTIGATION AND NOT ON ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, FROM CITY OR ITS AGENTS AS TO ANY MATTERS CONCERNING THE PROPERTY, ITS SUITABILITY FOR MODESTO'S INTENDED USES OR ANY OF THE PROPERTY CONDITIONS. CITY DOES NOT GUARANTEE THE LEGAL, PHYSICAL, GEOLOGICAL, ENVIRONMENTAL OR OTHER CONDITIONS OF THE PROPERTY, NOR DOES IT ASSUME ANY RESPONSIBILITY FOR THE COMPLIANCE OF THE PROPERTY OR ITS USE WITH ANY STATUTE, ORDINANCE OR REGULATION. IT IS MCHENRY'S SOLE RESPONSIBILITY TO DETERMINE ALL BUILDING, PLANNING, ZONING AND OTHER REGULATIONS RELATING TO THE PROPERTY AND THE USES TO WHICH IT MAY BE PUT.

4.4 Release of City

As part of its agreement to purchase the Easement in its "As-Is With All Faults" condition, McHenry, on behalf of itself and its successors and assigns, waives any right to recover from, and forever releases and discharges, City, its officers, employees, agents, contractors and representatives, and their respective heirs, successors, legal representatives and assigns, from any and all demands, claims, legal or administrative proceedings, losses, liabilities, damages, penalties, fines, liens, judgments, costs or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise on account of or in any way be connected with (i) McHenry's and Modesto's and their respective Agents' and invitees' past, present and future use of the Easement Area, (ii) the design, construction, maintenance and repair of any improvements constructed on the Easement Area by or for McHenry or Modesto prior to the Closing, (iii) the physical, geological or environmental condition of the Easement Area, including, without limitation, any Hazardous Material in, on, under, above or about the Easement Area, and (iv) any federal, state, local or administrative law, rule, regulation, order or requirement applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA", also commonly known as the "Superfund" law), as amended by Superfund Amendments and Reauthorization Act of 1986 ("SARA") (42 U.S.C. Sections 9601-9657), the Resource Conservation and Recovery Act of 1976, as amended by the Solid Waste and Disposal Act of 1984 (collectively, "RCRA") (42 U.S.C. Sections 6901-6987), the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (collectively the "Clean Water Act") (33 U.S.C. Section 1251 et seq.), the Toxic Substances Control Act ("TSCA") (15 U.S.C. Sections 2601-2629), Hazardous Materials Transportation Act (49 U.S.C. Section 1801 et seq.), the Carpenter-Presley-Tanner Hazardous Substance Account Law (commonly known as the "California Superfund" law) (California Health and Safety Code Sections 25300-25395), Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), Hazardous Materials Release Response Plans and Inventory Law (commonly known as the "Business Plan Law") (California Health and Safety Code Section 25500 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), Safe Drinking Water and Toxic Enforcement Act of 1986 (commonly known as "Proposition 65") (California Health and Safety Code Section 25249.5 et seq.).

In connection with the foregoing release, McHenry expressly waives the benefits of Section 1542 of the California Civil Code, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN TO HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

BY PLACING ITS INITIALS BELOW, MCHENRY SPECIFICALLY ACKNOWLEDGES AND CONFIRMS THE VALIDITY OF THE RELEASES MADE ABOVE AND THE FACT THAT MCHENRY WAS REPRESENTED BY COUNSEL WHO EXPLAINED, AT THE TIME THIS AGREEMENT WAS MADE, THE CONSEQUENCES OF THE ABOVE RELEASES.

McHENRY'S INITIALS: _____

5. CONDITIONS PRECEDENT

5.1 McHenry's Conditions Precedent

McHenry's obligation to pay for the Easement is conditioned upon the following ("McHenry's Conditions Precedent"):

(a) City staff shall have timely obtained the necessary approvals from City's Public Utilities Commission, Board of Supervisors and Mayor on or before November 9, 2015, as such date may be extended by City.

(b) City shall have executed and acknowledged a counterpart of the Easement Agreement (and delivered it to escrow if the parties are closing through an escrow) and shall be prepared to record the Easement Agreement upon receipt of the Purchase Price on the Closing Date.

5.2 Failure of McHenry's Conditions Precedent

Each of McHenry's Conditions Precedent is intended solely for the benefit of McHenry. If any of McHenry's Conditions Precedent are not satisfied as provided above, McHenry may, at its option, terminate this Agreement or waive the condition; however, the condition set forth in **Section 5.3(b)** may not be waived except for extending the deadline for satisfaction. Upon any such termination, neither party shall have any further rights or obligations hereunder except as provided in **Section 8.2** [Brokers] or **9.4** [Authority of McHenry] or as otherwise expressly provided herein. However, such termination shall not affect the parties' respective rights and obligations under the McHenry Avenue Improvement License or any other license agreement between McHenry and City.

5.3 City's Conditions Precedent

The following are conditions precedent to City's obligation to convey the Easement to Modesto ("City's Conditions Precedent"):

(a) McHenry shall have performed all of its obligations hereunder, and all of Buyer's representations and warranties shall be true and correct.

(b) An ordinance or resolution approving and authorizing the transactions contemplated hereby and finding that the public interest or necessity demands, or will not be inconvenienced by the sale of the Easement, shall have been adopted by the City's Board of Supervisors and Mayor, each in their respective sole and absolute discretion, on or before November 9, 2015.

(c) McHenry shall not be in default beyond any applicable cure period of its obligations under any License Agreement between McHenry and City.

5.4 Failure of City's Conditions Precedent

Each of City's Conditions Precedent is intended solely for the benefit of City. If any of City's Conditions Precedent are not satisfied as provided above, City may, at its option, terminate this Agreement or waive the condition; however, the condition set forth in

Section 5.3(b) may not be waived except for extending the deadline for satisfaction. Upon any such termination, neither party shall have any further rights or obligations hereunder except as provided in **Section 8.2** [Brokers] or **9.4** [Authority of McHenry] or as otherwise expressly provided herein. However, such termination shall not affect the parties' respective rights and obligations under the McHenry Avenue Improvement License or any other license agreement between McHenry and City.

6. ESCROW AND CLOSING

6.1 Escrow

The parties may elect to close through an escrow with the Title Company or without an escrow pursuant to **Section 6.5**. If the parties elect to close through an escrow, then within five (5) business days after the parties execute this Agreement, McHenry and City shall deposit an executed counterpart of this Agreement with the Title Company, and this instrument shall serve as the instructions to the Title Company as the escrow holder for consummation of the purchase and sale contemplated hereby. City and McHenry agree to execute such supplementary escrow instructions as may be appropriate to enable the Title Company to comply with the terms of this Agreement; provided, however, in the event of any conflict between the provisions of this Agreement and any supplementary escrow instructions, the terms of this Agreement shall control.

6.2 Closing Date

The Closing hereunder shall be held, and delivery of all items to be made at the Closing under the terms of this Agreement before 1:00 p.m. San Francisco Time on (i) the date which is within forty-five (45) days after the effective date of the Board of Supervisor's ordinance or resolution referred to in **Section 5.3(b)** above, or if such date is not a business day, then upon the next ensuing business day, or (ii) such other date and time as McHenry and City may mutually agree upon in writing (the "**Closing Date**").

6.3 Deposit of Documents

(a) If the parties elect to close through an escrow, at or before the Closing, City shall deposit into escrow the following:

(i) the duly executed and acknowledged counterpart of the Easement Agreement conveying the Easement to Modesto subject to the Conditions of Title.

(b) If the parties elect to close through an escrow, at or before the Closing, McHenry shall deposit into escrow the following:

(i) the balance of the Purchase Price and other funds necessary to close this transaction, including expenses under Section 8;

(ii) any additional funds as may then be owing to City by McHenry under that Cost Reimbursement Agreement date October 1, 2014, between City and McHenry; and

(iii) a counterpart of the Easement Agreement, duly executed and acknowledged by Modesto, including the duly executed Certificate of Acceptance.

(c) City and McHenry shall each deposit such other instruments as are reasonably required by the Title Company or otherwise required to close the escrow and consummate the purchase of the Easement in accordance with the terms hereof.

6.4 Prorations

Any real property taxes and assessments payable with respect to the Easement, shall be prorated as of 12:01 a.m. on the date the Easement Agreement is recorded, on the basis of a three hundred sixty-five (365)-day year. City and McHenry hereby agree that if such prorations cannot be calculated accurately on the Closing Date, then the same shall be calculated as soon as reasonably practicable after the Closing Date and either party owing the other party a sum of money based on such subsequent proration(s) shall promptly pay said sum to the other party.

6.5 Closing without Escrow.

If the parties elect to consummate the purchase and sale without an escrow, City shall effect the Closing on the Closing Date as follows:

(a) McHenry shall deliver to City the Purchase Price and McHenry's share of expenses and prorations, if applicable, and any additional funds required under this **Section 6** and **Section 8**.

(b) City shall cause the Easement Agreement to be executed, recorded and delivered, when City receives such funds and City's Conditions Precedent are satisfied.

(c) City shall provide McHenry with a recordation conformed copy of the recorded Easement Agreement.

7. RISK OF LOSS

7.1 Loss

City shall give McHenry notice of the occurrence of damage or destruction of, or the commencement of condemnation proceedings affecting, any portion of the Easement Area. In the event that all or any portion of the Easement Area is condemned, or destroyed or damaged by fire or other casualty prior to the Closing, then so long as Modesto or Caltrans still intends to use Easement Area for public street and sidewalk purposes, McHenry shall proceed with the purchase of the Easement, and upon the Closing, McHenry shall receive a credit against the Purchase Price, equal to the amount of any insurance proceeds or condemnation awards actually collected by City as a result of any such damage or destruction or condemnation and allocable to the Easement, less any sums expended by City toward the restoration or repair of the Easement Area. If the proceeds or awards have not been collected as of the Closing, then City shall assign such proceeds or awards to McHenry, except to the extent needed to reimburse City for sums expended to collect such proceeds or repair or restore the Easement Area, and McHenry shall not receive any credit against the Purchase Price with respect to such proceeds or awards. If following such damage, destruction or condemnation, neither Modesto nor Caltrans intends to

use the Easement Area for public street or sidewalk purposes, then the parties shall terminate this Agreement, the Title Company or City shall return the Deposit to McHenry and return to Modesto the signed counterpart of the Easement Agreement, and neither party shall have any further rights or obligations hereunder except as provided in Section 8.2 [Brokers], or otherwise expressly provided herein. However, such termination shall not affect the parties' respective rights and obligations under the McHenry Avenue Improvement License or any other license agreement between McHenry and City.

7.2 Self-Insurance

Notwithstanding anything to the contrary above, McHenry acknowledges that City self-insures and shall not be obligated to purchase any third-party commercial liability insurance or property insurance.

8. EXPENSES

8.1 Expenses

McHenry shall pay any transfer taxes applicable to the sale, personal property taxes, escrow fees and recording charges and any other costs and charges of the escrow for the sale.

8.2 Brokers

The parties represent and warrant to each other that no broker or finder was instrumental in arranging or bringing about this transaction and that there are no claims or rights for brokerage commissions or finder's fees in connection with the transactions contemplated by this Agreement. If any person brings a claim for a commission or finder's fee based on any contact, dealings, or communication with McHenry or City, then the party through whom such person makes a claim shall defend the other party from such claim, and shall indemnify the indemnified party from, and hold the indemnified party against, any and all costs, damages, claims, liabilities, or expenses (including, without limitation, reasonable attorneys' fees and disbursements) that the indemnified party incurs in defending against the claim. The provisions of this Section shall survive the Closing, or, if the purchase and sale is not consummated for any reason, any termination of this Agreement.

9. INTENTIONALLY OMITTED

10. GENERAL PROVISIONS

10.1 Notices

Any notices required or permitted to be given under this Agreement shall be in writing and shall be delivered (a) in person, (b) by certified mail, postage prepaid, return receipt requested, or (c) by U.S. Express Mail or commercial overnight courier that guarantees next business day delivery and provides a receipt, and such notices shall be addressed as follows:

CITY:

Real Estate Division
City and County of San Francisco
25 Van Ness Avenue, Suite 400
San Francisco, CA 94102
Attn: Director of Property
Re: SFPUC Parcel 656

with a copy to:

Real Estate Director
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 10th Floor
San Francisco, CA 94102

and:

Office of the City Attorney
City Hall, Room 234
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102
Attn: Real Estate Team

MCHENRY:

John Gardner
JWG McHenry LLC
c/o Central Valley Automotive
4460 McHenry Ave.
Modesto, CA 95356

with a copy to:

Marianne F. Adriatico
Duane Morris LLP
865 South Figueroa Street, Suite 3100
Los Angeles, CA 90017-5450

or such other address as either party may from time to time specify in writing to the other party. Any correctly addressed notice given by a method that provides confirmation of delivery shall be deemed given on the earliest of confirmed delivery or confirmed first attempted delivery.

10.2 Successors and Assigns

This Agreement shall be binding upon, and inure to the benefit of, the parties hereto and their respective successors, heirs, legal representatives, administrators and assigns. McHenry's rights and obligations hereunder shall not be assignable without the prior written consent of City; provided, however, even if City approves any such proposed assignment, in no event shall McHenry be released of any of its obligations hereunder.

10.3 Amendments

This Agreement may be amended or modified only by a written instrument signed by the McHenry and City.

10.4 McHenry's Representations and Warranties

McHenry makes the following representations as of the date of this Agreement and at all times throughout this Agreement:

(a) JWG McHenry, LLC is a limited liability company duly organized and validly existing and in good standing under the laws of the State of California. McHenry has

duly authorized by all necessary action the execution, delivery and performance of this Agreement. McHenry has duly executed and delivered this Agreement and this Agreement constitutes a legal, valid and binding obligation of McHenry, enforceable against McHenry in accordance with the terms hereof.

(b) McHenry represents and warrants to City that it has not been suspended, disciplined or disbarred by, or prohibited from contracting with, any federal, state or local governmental agency. In the event McHenry has been so suspended, disbarred, disciplined or prohibited from contracting with any governmental agency, it shall immediately notify the City of same and the reasons therefore together with any relevant facts or information requested by City. Any such suspension, debarment, discipline or prohibition may result in the termination or suspension of this Agreement.

(c) No document or instrument furnished or to be furnished by the McHenry to the City in connection with this Agreement contains or will contain any untrue statement of material fact or omits or will omit a material fact necessary to make the statements contained therein not misleading, under the circumstances under which any such statement shall have been made.

Notwithstanding anything to the contrary in this Agreement, the foregoing representations and warranties and any and all other representations and warranties of McHenry contained herein or in other agreements or documents executed by McHenry in connection herewith, shall survive the Closing Date.

10.5 Governing Law

This Agreement shall be governed by, subject to, and construed in accordance with the laws of the State of California and City's Charter and Administrative Code.

10.6 Merger of Prior Agreements

This Agreement, together with the exhibits hereto and license agreements referenced herein, contain any and all representations, warranties and covenants made by McHenry and City and constitutes the entire understanding between the parties hereto with respect to the purchase and sale of the Easement. Any prior correspondence, memoranda or agreements are replaced in total by this Agreement together with the exhibits hereto.

10.7 Parties and Their Agents

The term "McHenry" as used herein shall include the plural as well as the singular. If McHenry consists of more than one (1) individual or entity, then the obligations under this Agreement imposed on McHenry shall be joint and several. As used herein, the term "Agents" when used with respect to either party shall include the agents, employees, officers, contractors and representatives of such party.

10.8 Interpretation of Agreement

The article, section and other headings of this Agreement and the table of contents are for convenience of reference only and shall not affect the meaning or interpretation of any provision

contained herein. Whenever the context so requires, the use of the singular shall be deemed to include the plural and vice versa, and each gender reference shall be deemed to include the other and the neuter. This Agreement has been negotiated at arm's length and between persons sophisticated and knowledgeable in the matters dealt with herein. In addition, each party has been represented by experienced and knowledgeable legal counsel. Accordingly, any rule of law (including California Civil Code Section 1654) or legal decision that would require interpretation of any ambiguities in this Agreement against the party that has drafted it is not applicable and is waived. The provisions of this Agreement shall be interpreted in a reasonable manner to effect the purposes of the parties and this Agreement.

10.9 Attorneys' Fees

If either party hereto fails to perform any of its respective obligations under this Agreement or if any dispute arises between the parties hereto concerning the meaning or interpretation of any provision of this Agreement, then the defaulting party or the party not prevailing in such dispute, as the case may be, shall pay any and all costs and expenses incurred by the other party on account of such default or in enforcing or establishing its rights hereunder, including, without limitation, court costs and reasonable attorneys' fees and disbursements. For purposes of this Agreement, the reasonable fees of attorneys of the Office of the City Attorney of the City and County of San Francisco shall be based on the fees regularly charged by private attorneys with the equivalent number of years of experience in the subject matter area of the law for which the City Attorney's services were rendered who practice in the City of San Francisco in law firms with approximately the same number of attorneys as employed by the City Attorney's Office.

10.10 Time of Essence

Time is of the essence with respect to the performance of the parties' respective obligations contained herein.

10.11 No Merger

The obligations contained herein shall not merge with the transfer of title to the Easement but shall remain in effect until fulfilled.

10.12 Non-Liability of City Officials, Employees and Agents

Notwithstanding anything to the contrary in this Agreement, no elective or appointive board, commission, member, officer, employee or agent of City shall be personally liable to McHenry, its successors and assigns, in the event of any default or breach by City or for any amount which may become due to McHenry, its successors and assigns, or for any obligation of City under this Agreement.

10.13 Conflicts of Interest

Through its execution of this Agreement, McHenry acknowledges that it is familiar with the provisions of Section 15.103 of City's Charter, Article III, Chapter 2 of City's Campaign and Governmental Conduct Code, and Section 87100 et seq. and Section 1090 et seq. of the California Government Code, and certifies that it does not know of any facts which constitute a

violation of said provisions and agrees that if it becomes aware of any such fact during the term of this Agreement, McHenry shall immediately notify the City.

10.14 Notification of Limitations on Contributions

Through its execution of this Agreement, McHenry acknowledges that it is familiar with Section 1.126 of the San Francisco Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the selling or leasing of any land or building to or from the City whenever such transaction would require the approval by a City elective officer, the board on which that City elective officer serves, or a board on which an appointee of that individual serves, from making any campaign contribution to (1) the City elective officer, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual or candidate, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. McHenry acknowledges that the foregoing restriction applies only if the contract or a combination or series of contracts approved by the same individual or board in a fiscal year have a total anticipated or actual value of \$50,000 or more. McHenry further acknowledges that the prohibition on contributions applies to each McHenry; each member of McHenry's board of directors, and McHenry's chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than twenty percent (20%) in McHenry; any subcontractor listed in the contract; and any committee that is sponsored or controlled by McHenry. Additionally, McHenry acknowledges that McHenry must inform each of the persons described in the preceding sentence of the prohibitions contained in Section 1.126. McHenry further agrees to provide to City the names of each person, entity or committee described above.

10.15 Sunshine Ordinance

McHenry understands and agrees that under the City's Sunshine Ordinance (San Francisco Administrative Code, Chapter 67) and the California Public Records Law (Gov. Code Section 6250 et seq.), this Agreement and any and all records, information, and materials submitted to the City hereunder public records subject to public disclosure. McHenry hereby acknowledges that the City may disclose any records, information and materials submitted to the City in connection with this Agreement.

10.16 Tropical Hardwood and Virgin Redwood Ban

The City and County of San Francisco urges companies not to import, purchase, obtain or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product except as expressly permitted by the application of Sections 802(b) and 803(b) of the San Francisco Environment Code.

10.17 MacBride Principles - Northern Ireland

The City urges companies doing business in Northern Ireland to move toward resolving employment inequities and encourages them to abide by the MacBride Principles as expressed in San Francisco Administrative Code Section 12F.1 et seq. The City also urges companies to do business with corporations that abide by the MacBride Principles. McHenry acknowledges that it has read and understands the above statement of the City concerning doing business in Northern Ireland.

10.18 No Recording

Neither this Agreement nor any memorandum or short form thereof may be recorded by McHenry.

10.19 Effective Date

As used herein, the term "**Effective Date**" shall mean the date on which the City's Board of Supervisors and Mayor enact a resolution or an ordinance approving and authorizing this Agreement and the transactions contemplated hereby, following execution of this Agreement by both parties.

10.20 Severability

If any provision of this Agreement or the application thereof to any person, entity or circumstance shall be invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each other provision of this Agreement shall be valid and be enforceable to the fullest extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

10.21 Counterparts

This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

10.22 Cooperative Drafting.

This Agreement has been drafted through a cooperative effort of both parties, and both parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THIS AGREEMENT, MCHENRY ACKNOWLEDGES AND AGREES THAT NO OFFICER OR EMPLOYEE OF CITY HAS AUTHORITY TO COMMIT CITY TO THIS AGREEMENT UNLESS AND UNTIL A RESOLUTION OR ORDINANCE OF CITY'S BOARD OF SUPERVISORS SHALL HAVE BEEN DULY ENACTED APPROVING THIS AGREEMENT AND AUTHORIZING THE TRANSACTIONS CONTEMPLATED HEREBY. THEREFORE, ANY OBLIGATIONS OR LIABILITIES OF CITY HEREUNDER ARE CONTINGENT UPON THE DUE ENACTMENT OF SUCH A RESOLUTION OR ORDINANCE, AND THIS AGREEMENT SHALL BE NULL AND VOID IF CITY'S BOARD OF SUPERVISORS AND MAYOR DO NOT APPROVE THIS AGREEMENT IN THEIR RESPECTIVE SOLE DISCRETION. APPROVAL OF THE TRANSACTIONS CONTEMPLATED HEREBY BY ANY DEPARTMENT, COMMISSION OR AGENCY OF CITY SHALL NOT BE DEEMED

TO IMPLY THAT SUCH RESOLUTION OR ORDINANCE WILL BE ENACTED NOR
WILL ANY SUCH APPROVAL CREATE ANY BINDING OBLIGATIONS ON CITY.

The parties have duly executed this Agreement as of the respective dates written below.

CITY:

CITY AND COUNTY OF
SAN FRANCISCO, a municipal corporation

By: _____
JOHN UPDIKE
Director of Property

Date: _____

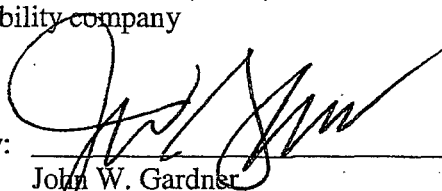
APPROVED AS TO FORM:

DENNIS J. HERRERA, City Attorney

By: _____
Carolyn Johnson Stein
Deputy City Attorney

MCHENRY:

JWG MCHENRY, LLC, a California limited
liability company

By: _____

John W. Gardner
President

Date: 10-13-2015

EXHIBIT "A"
LEGAL DESCRIPTION

All that certain real property situate in the City of Modesto, County of Stanislaus, State of California, lying within the Southwest quarter of Section 4, Township 3 South, Range 9 East, Mount Diablo Meridian, described as follows:

ALL that portion of that certain 110.00 foot wide tract of land (herein after referred to as Hetch Hetchy Aqueduct right of way) conveyed to the City and County of San Francisco by Grant Deed filed in the Office of the Recorder of the County of Stanislaus on February 13, 1924 in Book 53 of Official Records at Page 491, being more particularly described as follows:

COMMENCING at the intersection point of the West line of said Section 4 and the surveyed center line of the Hetch Hetchy Aqueduct right of way, said point bears North 01°13'55" West, a distance of 875.40 feet as same is shown on that amended map filed for record in the Office of the Recorder of the County of Stanislaus on January 27, 2006 in Book 54 of Parcel Maps at Page 28; thence North 70°11'10" East along the center line of said surveyed center line of the Hetch Hetchy Aqueduct right of way, a distance of 58.02 feet to a point on the East line of that parcel of land conveyed to the State of California (State Highway 108) by Deed recorded July 13, 2001 as Document Number 63580 and being the TRUE POINT OF BEGINNING of this description; thence North 01°13'55" West along last said line, a distance of 58.02 feet to angle point in last said line and a point on the North line of said Hetch Hetchy Aqueduct right of way; thence North 70°11'10" East along last said line, a distance of 32.97 feet to a point of Intersection with the East right of way line of that certain 12.00 foot wide strip dedicated to the City of Modesto on last said Parcel Map; thence South 01°13'55" East, a distance of 116.05 feet to a point on the Southerly line of said Hetch Hetchy Aqueduct right of way; thence South 70°11'10" West along last said line, a distance of 32.97 feet to a point on the East line of said State Highway 108; thence North 01°13'55" West along last said line, a distance of 58.03 feet to the point of beginning of this description.

CONTAINING 3,627 square feet more or less.

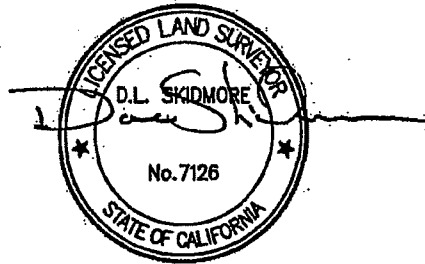


EXHIBIT B

Plat of Property

CLARATINA AVENUE



PARCEL "1"

EXIST. RIGHT OF WAY LINE

86.25'

SECTION LINE

55.00'

S70°11'10"W

N01°13'55"W

58.02'

SURVEYED CENTER LINE OF
110' WIDE RIGHT OF WAY
CITY AND COUNTY OF
SAN FRANCISCO

110' HETCH HETCHY
RIGHT-OF-WAY

BOOK 53, OFFICIAL RECORDS, PG. 491

P.O.B.

S70°11'10"W
58.02'

P.O.C.

S01°13'55"E

58.03'

3,627 SQ. FT.

N70°11'10"E

EXIST. RIGHT OF WAY LINE

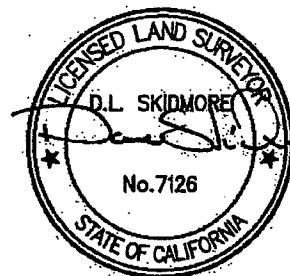
PARCEL "1"

54 - PM - 28

N01°13'55"W 875.40'

86.25'

SW. COR. SEC. 4
T.3 S., R. 9 E., M.D.M.



DRAWN: DLS

DATE: 5/11/15

SCALE: 1" = 30'

JOB #: 910-13

DWG: ExB(HH)(r1)

PLAT TO ACCOMPANY LEGAL DESCRIPTION

A PORTION OF THE SOUTHWEST QUARTER
OF SECTION 4, T. 3 S., R. 9 E., M.D.M.
CITY OF MODESTO, CALIFORNIA



**ASSOCIATED
ENGINEERING
GROUP**

4206 TECHNOLOGY DRIVE, SUITE 4, MODESTO, CA 95356
PHONE: (209) 545-3390 FAX: (209) 545-3875 www.assoceng.com

SCHEDULE 1

PROPERTY DISCLOSURES

Pursuant to Section 4.2 of the Agreement for Sale of Real Estate, to which this Schedule is attached, City discloses the following information concerning the Property:

- There are three (3) large diameter pipelines buried in the soil; the top of pipe is approximately four (4) feet deep. The pipes transport water for the needs of 2.5 million people in the San Francisco Bay Area.
- These three Hetch Hetchy San Joaquin Pipeline (SJPL) pipes have had their coatings partially reconditioned in the area of the Property. Reconditioned pipe is coated with Environline 376.
- SJPL1, installed in approximately 1923, is a 56-inch diameter steel pipe with riveted steel joints coated with bitumen (asphalt) paper wrapped.
- SJPL2, installed in approximately 1956, is a 62-inch diameter steel pipe coated with cement mortar
- SJPL3, installed in approximately 1965, is a 78-inch diameter steel pipe coated with coal tar paper covering with asbestos filler as a binding agent.
- Additional pipelines may be installed, including a future SJPL #4, 78 inches in diameter. The exact dates depend on Hetch Hetchy needs and funding.
- The combined capacity of the three existing SJPL pipes is 420 million gallons of water per day.
- The pressure in the pipes is up to 200 psi.
- The pH of the water in the pipes varies from 6.7 to 10.6 pH.
- Cathodic protection insulated copper wire test leads are attached to the pipes.
- DC electric current on the order of 30 Volts DC may one day be induced on the pipes.
- The soil in that area is 100% disturbed down to 15 feet beneath the surface due to construction activity.
- The soil was filled and compacted to approximately 90%.
- The fill under the pipes is controlled low strength cement material on the order of 300 psi.
- There are Hetch Hetchy high voltage electrical transmission lines overhead; the existing north lines are 230kV and the existing south lines are 130kV.

EXHIBIT C

FORM OF EASEMENT AGREEMENT

[See attached]

Recording Requested By
and
When Recorded Mail To:

(Space Above For Recorder's Use)

**SAN FRANCISCO PUBLIC UTILITIES COMMISSION
EASEMENT DEED AND AGREEMENT**

THIS EASEMENT AGREEMENT (this "Agreement") dated for reference purposes only as of _____, 2015, is made by and between the **CITY AND COUNTY OF SAN FRANCISCO**, a municipal corporation ("San Francisco"), acting by and through its Public Utilities Commission ("SFPUC"), and **City of Modesto**, a municipal corporation ("Holder").

RECITALS

A. San Francisco owns in fee that certain real property situated in the City of Modesto, County of Stanislaus, State of California, more particularly described in attached **Exhibit A** (the "Easement Area"). The Easement Area is shown generally on attached **Exhibit B**. The Easement Area is a portion of the real property described in attached **Exhibit C** ("San Francisco's Property").

B. San Francisco, acting through SFPUC, is the owner and operator of regional water and power systems. As part of those systems, San Francisco maintains and operates within San Francisco's Property and adjacent real property various facilities, fixtures and structures for the transmission of utilities, including subsurface water transmission pipelines, vaults, conduits, tunnels, surface towers and overhead power transmission lines and appurtenances (as they currently exist and may be modified, replaced, expanded, added to, constructed and installed from time to time, the "SFPUC Facilities").

C. In connection with the development of adjacent property, Holder has required that JWG McHenry, LLC, a California limited liability company, make certain improvements to McHenry Avenue, including widening the road to include street, curb and gutter improvements on the surface of the Easement Area. San Francisco is willing to allow the construction of such improvements within the Easement Area and to convey an easement for such roadway use subject to the condition that a protective bridge or cap (the "Cap") be constructed and maintained over San Francisco's subsurface water transmission pipelines and subject to the other terms and conditions of this Agreement.

Now, therefore, San Francisco and Holder agree as follows:

1. **Easement.**

(a) **Conveyance of Easement.** San Francisco quitclaims and conveys to Holder and its successors and assigns, without warranty, a perpetual, nonexclusive easement upon, over and across the Easement Area for the limited purpose and subject to the terms, conditions and restrictions set forth below (the "Easement").

(b) **No Representations.** THE PRIVILEGE GIVEN TO HOLDER UNDER THIS AGREEMENT IS EFFECTIVE ONLY INsofar AS THE RIGHTS OF SAN FRANCISCO IN THE EASEMENT AREA ARE CONCERNED, AND HOLDER SHALL OBTAIN ANY FURTHER PERMISSION NECESSARY BECAUSE OF ANY OTHER EXISTING RIGHTS AFFECTING THE EASEMENT AREA. HOLDER ACKNOWLEDGES AND AGREES THAT NEITHER SAN FRANCISCO NOR ANY OF ITS AGENTS HAVE MADE, AND SAN FRANCISCO HEREBY DISCLAIMS, ANY REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, CONCERNING SAN FRANCISCO'S TITLE TO THE EASEMENT AREA OR THE PRESENT OR FUTURE SUITABILITY OF THE EASEMENT AREA FOR HOLDER'S INTENDED WORK OR IMPROVEMENTS.

2. **Commencement Date.** The Easement shall commence on the date on which this Agreement is fully executed and recorded in the Office of the County Recorder of Stanislaus County, California (the "Commencement Date"), provided that San Francisco's Public Utilities Commission, Board of Supervisors, and Mayor shall each in its sole discretion have duly adopted a resolution approving this Agreement and authorizing the transactions contemplated hereby. The effectiveness of this Agreement is contingent upon adoption of such resolutions.

3. **Use of Easement Area.**

(a) **Holder's Permitted Acts.** Holder may enter and use the Easement Area for the sole purposes of constructing, reconstructing, upgrading, replacing, removing, inspecting, maintaining, repairing and operating the Cap over the top of San Francisco's subsurface water transmission pipelines, and curb, gutter and roadway improvements on the surface of the Easement Area to comprise a portion of McHenry Avenue, a public street, all in strict accordance with Section 4(a) (Approval of Plans and Specifications) hereof (the "Permitted Acts"), and for no other purpose. Holder's use of the Easement Area for roadway purposes is conditioned upon construction of the Cap in accordance with the Initial Approved Plans, as defined in Section 4(a), and Holder's maintenance of such Cap in good condition and repair. The Cap and the curb, gutter and roadway improvements, as originally constructed within the Easement Area and as Holder may modify or replace them from time to time in accordance with this Agreement, are referred to herein collectively as the "Road Improvements." San Francisco and Holder acknowledge that San Francisco has allowed the initial construction of the Road Improvements to be performed by JWG McHenry, LLC, prior to the effective date of the Easement, pursuant to a separate License Agreement between JWG McHenry, LLC, and San Francisco. The Permitted Acts shall not include installation, maintenance or operation of third party utility facilities such as, without limitation, electrical, communications, water or sewer facilities within the Easement Area. Utility and communications providers (whether private or

public, including municipalities and public agencies) must obtain San Francisco's prior approval for any such installation, and such approval may be granted or withheld at San Francisco's sole discretion. The Permitted Acts may be performed by Holder's agents, employees, contractors, architects, vendors, material suppliers and invitees.

(b) **Subject to San Francisco Uses.** Holder is aware that the Easement Area constitutes a portion of San Francisco's regional water and power transmission systems. Notwithstanding anything to the contrary in this Agreement, any and all of Holder's activities hereunder shall be subject and subordinate at all times to San Francisco's existing and future use of the Easement Area for utility and other municipal purposes, which may include construction of additional subsurface pipelines within the Easement Area. San Francisco shall in no way be liable for any damage or destruction to the Road Improvements or the personal property of Holder or its Agents resulting from any construction, accident, break, repair, assessment, or maintenance of any pipeline or other SFPUC Facilities located on or about the Easement Area. Holder acknowledges that San Francisco may use the open trench method for access to San Francisco's existing or future facilities or pipelines located on or about the Easement Area in the event of maintenance, repair, replacement, construction or installation of any existing, future or additional pipelines, conduits transmission lines, tunnels or other SFPUC Facilities. Upon prior notice from San Francisco, Holder shall use good faith, reasonable efforts to cooperate and accommodate any assessment, maintenance, repair or construction work schedule provided by San Francisco related to the Easement Area, and San Francisco agrees to use good faith, reasonable efforts to coordinate nonemergency maintenance, repair and construction work with Holder so as to minimize disruption to Holder's use of the Easement Area to the extent reasonably practicable. If San Francisco determines that it is necessary to remove or damage the Cap in whole or in part in order to repair, replace or construct San Francisco's pipes, upon completion of such work, Holder shall restore or replace the Cap at its sole cost so that it protects the pipelines and supports roadway uses, to the reasonable satisfaction of San Francisco and Caltrans.

4. **Holder's Construction and Ownership of Improvements.** Holder accepts ownership of the Road Improvements that were constructed by JWG McHenry, LLC, within the Easement Area in accordance with the plans and specifications described on attached Exhibit D (the "Initial Approved Plans"). Subject to the terms and conditions of this Agreement, Holder may, at its sole cost and expense, construct or cause the construction of modifications, additions or replacements of such Road Improvements and shall, at its sole cost and expense, maintain the Road Improvements in good, safe condition and repair.

(a) **Approval of Holder's Plans and Specifications.** Holder shall construct and install any improvements in the Easement Area, including modifications, additions, or replacements to the Road Improvements, in strict accordance with plans and specifications (including drawings) approved in advance and in writing by SFPUC ("Approved Plans"). Plans and drawings for any repairs or replacements of the Cap and any other improvements that will impact Caltrans' property or traffic operations on McHenry Avenue (so long as it remains a state route) must also be approved in writing in advance by Caltrans. Any Approved Plans may be revised or amended only with prior written approval of SFPUC, in its sole discretion, after SFPUC's Bureau of Environmental Management has determined that no further environmental review is required by CEQA as a result of any such revision or amendment. SFPUC's consent to

or approval of any improvements, equipment or fixtures shall not relieve Holder or its engineers, architects or contractors from any liability for negligence, errors or omissions associated with the design and construction thereof. In no event shall SFPUC's approval of the Initial Approved Plans, any future Approved Plans, or any other plans and specifications be deemed to constitute a representation or warranty by San Francisco concerning the suitability of the improvements, equipment or fixtures for Holder's purposes or that the work called for in the plans and specifications complies with applicable laws or industry standards nor shall such approval release Holder from Holder's obligation to supply plans and specifications that conform to applicable building codes, other laws and industry standards.

(b) **Permits and Approvals.** Before beginning any work in the Easement Area, Holder shall obtain any and all permits, licenses and approvals (collectively, "Approvals") of all regulatory agencies and other third parties that are required to commence, complete and maintain the permitted work. Promptly upon receipt of such Approvals, Holder shall deliver copies of them to SFPUC. Holder recognizes and agrees that no approval by SFPUC for purposes of Holder's work hereunder shall be deemed to constitute the approval of any federal, state or local regulatory authority with jurisdiction, and nothing herein shall limit Holder's obligation to obtain all such regulatory Approvals, at Holder's sole cost.

(c) **Exercise of Due Care.** Due care shall be used at all times to avoid any damage or harm to SFPUC Facilities, or other property and to any native vegetation and natural attributes of the Easement Area and to minimize slope erosion. Holder shall not disturb the surface of the Easement Area or perform any excavation work without the prior written approval of San Francisco, which San Francisco may withhold in its sole discretion. San Francisco shall have the right to condition and/or oversee any permitted excavation work. Holder shall not use any pick, plow or other sharp tool to remove the two feet (2') of soil around the transmission mains, provided that Holder may use hand shovels or pneumatic shovels in compliance with all other terms and conditions of this Agreement. Holder shall immediately inform San Francisco of any actual or potential damage to the coating of the pipeline, and any such damage shall be promptly repaired by Holder, at its own expense, to the satisfaction of San Francisco prior to backfilling; provided, San Francisco may elect, in its sole discretion, to make any necessary repairs itself, at Holder's sole cost, by notifying Holder of such fact. Upon completion of the repairs, San Francisco shall send to Holder a bill therefore which Holder shall pay within thirty (30) days following receipt. Under no circumstances shall Holder damage, harm or take any rare, threatened or endangered species on or about the Easement Area.

(d) **Cooperation with Public Utilities Commission.** Holder and its agents, contractors, subcontractors and consultants shall work closely with San Francisco personnel to minimize any potential disruption (even if temporary) of San Francisco's Facilities, in, under, on or about the Easement Area and San Francisco's use thereof.

(e) **Heavy Equipment.** Holder shall not use any heavy construction equipment over or about San Francisco's pipelines, except as otherwise expressly allowed in Section 5(i) (Protection of the SFPUC Facilities).

(f) **Work Schedule; San Francisco Construction Inspector.** At least ten (10) business days prior to the commencement of any work on the Easement Area, Holder shall notify

the Construction Inspector, at 209-989-2832 or 209-989-2547, of the date such work shall commence and the intended construction schedule, which shall be subject to San Francisco's prior written approval. Notwithstanding the approval of such schedule, the Construction Inspector shall have the right to require Holder to reasonably adjust such schedule from time to time. No work shall take place within the Easement without the Construction Inspector present. Holder shall bear the cost of the Construction Inspector at San Francisco's standard charge, as it may be revised from time to time. All work must be performed during regular working hours (Monday through Friday) between 8:00 a.m. and 4:30 p.m., exclusive of San Francisco holidays. Any work performed during any other time or day must be preapproved by the SFPUC at least five (5) business days prior to commencing such work. In connection with such approval, San Francisco shall have the right to charge Holder additional inspection fees payable prior to SFPUC's approval of the request. Holder shall complete all work in accordance with the approved schedule, subject only to unavoidable delays. For purposes hereof, "unavoidable delays" shall mean any delays by reason of acts of God, accidents, breakage, strikes, lockouts, other labor disputes, enemy action, civil commotion, protests, riots, demonstrations, federal or state governmental restrictions, or by any other reason beyond the reasonable control of Holder (excluding financial inability).

(g) **Restoration of Easement Area.** Immediately following completion of any work permitted under this Agreement, Holder shall remove all debris and any excess dirt, repair any damage caused to San Francisco's facilities and adjacent property, and place the Easement Area in the condition reflected in the Approved Plans. Any area that is not slated for modification in the Approved Plans but is altered by the work shall be returned to pre-work condition, to San Francisco's reasonable satisfaction.

(h) **Pipeline Depth/Installation of Above-Ground Markers.** Before commencing any excavation work in the Easement Area, Holder shall have a licensed surveyor prepare a survey of all SFPUC structures and other SFPUC Facilities on, under and above the surface of the Easement Area and shall submit the survey to San Francisco for review and reasonable approval. Before commencing any excavation work in the Easement Area, Holder shall confirm by field measure the depth of any San Francisco's structures or facilities (which includes but is not limited to pipelines, conduits and cables) located in the Easement Area and shall forward such information to San Francisco. Holder shall install above-ground markers identifying the location of any underground facilities installed pursuant to this Agreement. The location, type and installation of markers and identifying information on the markers shall be subject to the prior written approval of SFPUC.

(i) **As-Built Drawings/Reports.** Promptly upon completion of the installation of permitted improvements, Holder shall furnish SFPUC with two (2) complete copies (including electronic CAD format ".dwg" files) of final as-built drawings for the Road Improvements, which drawings shall include sufficient detail so as to allow San Francisco to precisely locate the Road Improvements. In the event that Holder or its agents or consultants prepares any environmental, seismic, geophysical or other written report relating to the Easement Area and/or any work performed thereon, Holder shall furnish to San Francisco a complete copy of such report, including any schedules, exhibits and maps, promptly upon completion of the same.

(j) **Responsibility for Maintenance of Road Improvements.** Holder shall be solely responsible for repairing and maintaining all Road Improvements placed within the Easement Area and the surface of the Easement Area in good and safe condition. The term "Road Improvements" includes all improvements, alterations, fixtures and facilities constructed or installed by or for Holder or JWG McHenry LLC in accordance with the Initial Approved Plans or any future Approved Plans. Holder shall notify San Francisco in writing not less than five (5) business days before performing any routine repair or maintenance work in the Easement Area, except in the case of an emergency wherein Holder shall notify San Francisco telephonically and in writing as soon as reasonably possible.

(k) **Potholing.** Any potholing authorized by this Agreement shall be subject to the direction of San Francisco's inspector. Potholing using the soft dig method is preferred. The use of other mechanical methods such as digging with a backhoe must be approved by SFPUC at least five (5) business days prior to commencing such work. Notwithstanding the foregoing, the last two (2) feet above the top of any San Francisco pipe must be dug manually, without the use of any machines.

5. **Restrictions on Use.** Holder agrees that, by way of example only and without limitation, the following uses of the Easement Area by Holder, or any other person claiming by or through Holder, are inconsistent with the limited purpose of this Agreement and are strictly prohibited as provided below:

(a) **Improvements.** Except as otherwise expressly provided herein, Holder shall not construct or place any temporary or permanent structures or improvements in, on, under or about the Easement Area, nor shall Holder make any alterations or additions to any of existing structures or improvements on the Easement Area, unless Holder first obtains SFPUC's prior written consent, which SFPUC may give or withhold in its sole and absolute discretion. For purposes hereof, "improvements" shall include but not be limited to asphalt, blacktop, concrete and cementitious concrete driveways, sidewalks and parking areas, shacks, storage facilities, poles, towers, wires, signs, fences, and changes to grade elevation.

(b) **Trees and Other Plantings.** In no event shall Holder plant or maintain any trees within the Easement Area. Holder shall not plant or maintain any other vegetation in or on the Easement Area, except as otherwise expressly provided herein and except in accordance with detailed plans consistent with the SFPUC's Vegetation Management Policy, as it may be amended from time to time, and as approved by the SFPUC in writing in advance.

(c) **Dumping.** Holder shall not cause or permit the dumping or other disposal in, on, under or about the Easement Area of landfill, refuse, Hazardous Material (as defined below) or any other materials, including but not limited to materials that are unsightly or could pose a hazard to the human health or safety, native vegetation or wildlife, or the environment.

(d) **Hazardous Material.** Holder shall not cause, nor shall Holder allow any of its agents, contractors or subcontractors to cause, any Hazardous Material (as defined below) to be brought upon, kept, used, stored, generated, released or disposed of in, on, under or about the Easement Area, or transported to, from or over the Easement Area. Holder shall immediately notify San Francisco when Holder learns of, or has reason to believe that, a release of Hazardous

Material has occurred in, on, under or about the Easement Area. Holder shall further comply with all laws, statutes, ordinances, rules, regulations, policies, orders, edicts and the like (collectively, "Laws") requiring notice of such releases or threatened releases to governmental agencies, and shall take all action necessary or desirable to mitigate the release or minimize the spread of contamination. In the event that Holder or its agents, contractors or subcontractors cause a release of Hazardous Material, Holder shall, without cost to San Francisco and in accordance with all Laws and using the highest and best technology available, promptly return the Easement Area to the condition immediately prior to the release. In connection therewith, Holder shall afford San Francisco a full opportunity to negotiate and participate in any discussion with governmental agencies and environmental consultants regarding any settlement agreement, cleanup or abatement agreement, consent decree or other compromise proceeding involving Hazardous Material, and any other abatement or clean-up plan, strategy and procedure. For purposes hereof, "Hazardous Material" means material that, because of its quantity, concentration or physical or chemical characteristics, is at any time now or hereafter deemed by any federal, state or local governmental authority to pose a present or potential hazard to public health, welfare or the environment. Hazardous Material includes the following: any material or substance defined as a "hazardous substance, pollutant or contaminant" pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. Sections 9601 et seq., or pursuant to Section 25316 of the California Health & Safety Code or any other federal, state, or local Law; a "hazardous waste" listed pursuant to Section 25140 of the California Health & Safety Code; any asbestos and asbestos containing materials whether or not such materials are part of the Easement Area or are naturally occurring substances in the Easement Area; and any petroleum, including crude oil or any fraction thereof, natural gas or natural gas liquids, provided, the foregoing shall not prohibit Holder from traversing to, from and across the Easement Area in standard motor vehicles that do not exceed the weight limitations set forth below. The term "release" or "threatened release" when used with respect to Hazardous Material shall include any actual or imminent spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing in, on, under or about the Easement Area.

(f) **Waste or Nuisance.** Holder shall not conduct any activities in, on, under or about the Easement Area that constitute waste, nuisance or unreasonable annoyance (including emission of objectionable odors, noises or lights) to San Francisco, to the owners or occupants of neighboring property, or to the public, or that constitute waste or nuisance per se.

(g) **Damage.** Holder shall not do anything in, on, under or about the Easement Area that could cause damage to or interference with any pipelines or other property located in, on, under or about the Easement Area.

(h) **Ponding; Water Courses.** Holder shall not cause any ponding on the Easement Area or any flooding on adjacent land. Holder shall not engage in any activity that causes any change, disturbance, fill, alteration or impairment to the bed, bank or channel of any natural water course, wetland, or other body of water on, in, under or about the Easement Area, nor shall Holder engage in any activity that could pollute or degrade any surface or subsurface waters or result in the diminution or drainage of such waters.

(i) **Protection of the SFPUC Facilities.** To prevent damage to San Francisco's underground pipelines, Holder's use of the Easement Area shall be subject to the following restrictions:

(1) Prior to construction of the Cap, or during any period when the Cap has been damaged or removed (each a "Non-Cap Period"), the depth of soil cover over the tops of San Francisco's pipelines must be at least three feet (3') for steel cylinder pipe and four feet (4') for reinforced pre-stressed concrete cylinder pipe to accommodate the loading as defined below in subsection (2). During any Non-Cap Period, if any equipment with axle loading exceeds the loads stated in subsection (2) below or if the depth of soil cover is less than stated above, Holder shall submit to SFPUC for review and approval, in SFPUC's sole discretion, engineering calculations prepared by a licensed Professional Engineer licensed in California showing that San Francisco's pipelines will not be adversely affected by Holder's proposed activities. In the event that San Francisco's pipelines may be adversely affected, Holder shall submit remedial measures for San Francisco's approval to ensure that no adverse effect will occur.

(2) During any Non-Cap Period, the effects of vehicle and equipment loads to the pipe must not exceed the effects of the "AASHTO Standard H-10 Loading." H-10 loading is defined as loading caused by a two-axle truck with a gross weight of ten tons (20,000 lbs.), axles fourteen feet (14') apart, and rear axle carrying 8-tons (16,000 lbs.). Holder shall be responsible to provide SFPUC adequate evidence that its equipment and vehicles meet the foregoing requirements.

(3) Holder shall not use vibrating compaction equipment within the Easement Area without SFPUC's prior written approval, which approval may be withheld in SFPUC's sole discretion.

(4) During any Non-Cap Period, if the depth of the soil cover over the pipelines (determined by potholing or other proof procedure) is less than the minimum stated in subsection (1) above, unless an alternate method is approved by SFPUC in writing, all excavation and grading over the pipelines shall be performed manually.

(5) For any machinery equipment excavation and grading over and within twenty feet (20') of each side of the centerline of any of the pipelines (measured on the surface), Holder shall submit a written proposal together with all supporting calculations and data to SFPUC for review and approval. In any case, the two feet (2') of soil around any pipeline shall be removed manually or by other methods approved by SFPUC with due care as provided in Section 4(c) (Exercise of Due Care).

(6) Holder shall maintain the Cap in good condition and repair at all times. If Holder becomes aware that any portion of the Cap is or may have been damaged, Holder shall immediately notify San Francisco via San Francisco's emergency contact pursuant to Section 18 (Notices) (or if San Francisco first becomes aware of such damage, San Francisco shall notify Holder via Holder's emergency contact pursuant to Section 18). In that event the parties shall also promptly notify Caltrans (if McHenry Avenue remains a State route at that time), and shall suspend all vehicular use of the surface of the Easement Area, unless and until San Francisco, Modesto and Caltrans determine, each in its sole discretion, that the Cap will support vehicular

traffic and protect the subsurface pipes. Any repair or replacement of the Cap must be in accordance with Approved Plans approved by San Francisco and (so long as McHenry Avenue remains a State route) by Caltrans. When submitting proposed plans for review, Holder shall also submit to SFPUC for review and approval, in SFPUC's sole discretion, engineering calculations prepared by a professional engineer licensed in California showing that the repaired or restored Cap will continue to support roadway use and protect San Francisco's subsurface pipelines.

6. Insurance.

(a) Holder shall at its expense procure and keep in effect, and cause each contractor, if any, performing work in the Easement Area, at its expense, to procure and keep in effect at all times during any construction activities on the Easement Area insurance as follows: (i) Commercial General Liability Insurance with limits not less than \$5,000,000 each occurrence combined single limit for bodily injury and property damage, including coverages for contractual liability, personal injury, independent contractors, explosion, collapse and underground (XCU), Broadform Property Damage, Sudden and Accidental Pollution, Products Liability and Completed Operations; (ii) Business Automobile Liability Insurance with limits not less than \$1,000,000 each occurrence combined single limit for bodily injury and property damage, including coverages for owned, non-owned and hired automobiles, as applicable, if Holder uses or causes to be used any vehicles in connection with its use of the Easement Area, and (iii) Workers' Compensation Insurance, including employer's liability coverage with limits of not less than \$1,000,000 each accident. Each workers' compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Permittee and its Agents related to this Agreement or the Easement Area. Regarding workers' compensation, Holder waives subrogation which any insurer of Holder may acquire from Holder by virtue of the payment of any loss. Holder shall include in any contract with a contractor for work to be performed on the Easement Area a provision by which the contractor waives subrogation which any insurer of the contractor may acquire from the contractor by virtue of the payment of any workers' compensation loss.

(b) All liability policies required hereunder shall provide for the following: (i) name as additional insureds the City and County of San Francisco, its Public Utilities Commission and its officers, agents and employees; and (ii) specify that such policies are primary insurance to any other insurance available to the additional insureds, with respect to any claims arising out of this Agreement and that insurance applies separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limit of liability. Such policies shall also provide for severability of interests and that an act or omission of one of the named insureds which would void or otherwise reduce coverage shall not reduce or void the coverage as to any insured, and shall afford coverage for all claims based on acts, omissions, injuries or damage which occurred or arose (or the onset of which occurred or arose) in whole or in part during the policy period. Sudden and accidental pollution coverage in the liability policies required hereunder shall be limited to losses resulting from Holder's activities (and Holder's agents, contractors, subcontractors and consultants) under this Agreement (excluding nonnegligent aggravation of existing conditions with respect to Hazardous Materials).

(c) All insurance policies required to be maintained by Holder hereunder shall be endorsed to provide thirty (30) days prior written notice to San Francisco of cancellation for any

reason, intended non-renewal, or reduction in coverage to Holder. Notice to San Francisco shall be mailed to the address(es) for San Francisco set forth in Section 18 (Notices) below. Insurance companies shall be legally authorized to engage in the business of furnishing insurance in the State of California. All insurance companies shall have a current A.M. Best Rating no less than "A-, VIII" and shall be satisfactory to San Francisco.

(d) Prior to the Commencement Date of this Agreement, Holder shall deliver to San Francisco certificates of insurance and additional insured policy endorsements from insurers in a form satisfactory to San Francisco, evidencing the coverages required hereunder, together with complete copies of the policies at San Francisco's request. In the event Holder shall fail to procure such insurance, or to deliver such policies or certificates, San Francisco may procure, at its option, the same for the account of Holder, and the cost thereof shall be paid to San Francisco within five (5) days after delivery to Holder of bills therefor.

(e) Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general aggregate limit shall double the occurrence or claims limits specified above.

(f) Should any of the required insurance be provided under a claims made form, Holder shall maintain such coverage continuously for the period of any construction activities on the Easement Area until the completion of the Road Improvements and, without lapse, for a period of three (3) years beyond the completion of the Road Improvements, to the effect that should any occurrences during such period, such claims shall be covered by such claims-made policies.

(g) If Holder is a public agency, Holder shall have the right to self-insure with respect to any of the insurance required under this consent, to the extent permitted by applicable law. If Holder elects to self-insure, Holder shall submit to San Francisco a certificate of self insurance signed by a duly authorized representative of Holder, such certificate evidencing that Holder's self-insurance program is adequately funded, in full force and effect and in compliance with and subject to all the terms, agreements, covenants, conditions and provisions of this consent, and shall give San Francisco prompt written notice of any significant change in or the depletion of its self-insurance fund. Notwithstanding the foregoing, Holder is also responsible for causing any contractor performing work within the Easement Area to maintain insurance coverages and coverage limits as required under this Section 6.

7. Compliance with Laws. Holder shall, at its expense, conduct and cause to be conducted all activities on the Easement Area allowed hereunder in a safe and reasonable manner and in compliance with all Laws of any governmental or other regulatory entity (including the Americans with Disabilities Act) and all covenants, restrictions and provisions of record, whether presently in effect or subsequently adopted and whether or not in the contemplation of the parties.

8. Covenant to Maintain Easement Area. In connection with its use hereunder, Holder shall at all times, at its sole cost, maintain the Easement Area in a good, clean, safe, secure,

sanitary and sightly condition, so far as the Easement Area may be affected by Holder's activities hereunder and operation of a roadway.

9. Intentionally Omitted

10. Removal or Alteration of Improvements. Without limiting San Francisco's rights hereunder, Holder shall promptly, at San Francisco's request, alter or remove at its sole expense any and all improvements, facilities, plantings or other property installed or placed in, on, under or about the Easement Area by or for Holder, as may be necessary to avoid any actual or potential interference with any of the SFPUC Facilities now or later constructed, or with the construction, repair or maintenance thereof; provided however, San Francisco agrees to provide to Holder at least sixty (60) days prior written notice of alteration or removal, except in the event of an emergency (as determined by San Francisco in its sole discretion), in which case no notice shall be required. In the request, San Francisco shall have the right to specify reasonable time limits for completion of the work. If after such written notice Holder fails to complete the requested work within the prescribed time limits, San Francisco shall have the right to perform the requested work and charge Holder all costs and expenses incurred by San Francisco in performing the work. Such amount shall be due and payable upon San Francisco's demand. In the event of an emergency San Francisco may, at its sole option and without notice, alter, remove or protect at Holder's sole expense, any and all improvements, facilities, plantings or other property owned by or installed or placed in, on, under or about the Easement Area by or for Holder. San Francisco shall have no responsibility for repairing or replacing any improvements, facilities, plantings or other property removed or damaged in the exercise of San Francisco's rights hereunder. If the surface is disturbed by San Francisco's exercise of its rights, San Francisco shall restore the surface to Base Conditions or the cost equivalent, or to such other condition as agreed to by Holder and Grantee, provided that Holder shall pay the cost of restoration to the extent it exceeds the cost of restoring to Base Conditions. "Base Conditions" is defined as three-inch (3") thick asphalt concrete over eight-inch (8") thick Portland cement concrete.

11. Traffic Control and Public Notice for Construction Activities. Each party shall be responsible, at its sole cost, for traffic control measures (such as temporary signs, cones and detour plans) for its own construction and maintenance activities within or affecting the Easement Area, and for advance media and neighborhood notification regarding such construction and maintenance activities.

12. Repair of Damage. If any portion of the Easement Area, the Cap, or any property of San Francisco located on or about the Easement Area, or any persons lawfully traversing on or about the Easement Area are injured, damaged or threatened by the condition of the Road Improvements or any of the activities conducted by Holder or Holder's Agents or Invitees, Holder shall immediately notify San Francisco of such damage or threat via San Francisco's emergency contact pursuant to Section 18 (Notices) (or if San Francisco first becomes aware of such damage or threat, San Francisco shall notify Holder via Holder's emergency contact pursuant to Section 18). San Francisco may, but shall not be obligated, to remedy any such damage or threat at Holder's sole cost, or San Francisco may elect to witness Holder's repair work. In the event San Francisco elects not to remedy such damage or threat, Holder shall repair any and all such damage and restore the Easement Area or property to its previous condition

subject to San Francisco's inspection, review and approval. San Francisco has no responsibility or liability of any kind with respect to any utilities that may be on, in or under the Easement Area. Holder has the sole responsibility to locate such utilities and other existing facilities and protect them from damage. Holder shall be solely responsible for arranging and paying directly for any utilities or services necessary for its activities hereunder; provided, Holder shall obtain San Francisco's prior written approval to the provision of such services or utilities in, on, under, or through the Easement Area.

13. **No Costs to San Francisco.** Holder shall bear all costs and expenses of any kind in connection with its use of the Easement Area, and shall keep the Easement Area free of any liens or claims of lien arising out of or in any way connected with its use of the Easement Area.

14. **Indemnity.** Holder shall indemnify, defend, reimburse and hold harmless San Francisco, its officers, agents, employees and contractors, and each of them, from and against any and all demands, claims, legal or administrative proceedings, losses, costs, penalties, fines, liens, judgments, damages and liabilities of any kind (together, "Claims"), arising in any manner out of (a) any injury to or death of any person or damage to or destruction of any property occurring within the Easement Area, or any part thereof, whether such injury, death, damage or destruction is caused by the person or property of Holder, its officers, directors, members, employees, agents, consultants, contractors or subcontractors (collectively, "Agents"), its invitees, guests or business visitors (collectively, "Invitees"), or third persons, relating to any use or activity under this Agreement, (b) any failure by Holder to faithfully observe or perform any of the terms, covenants or conditions of this Agreement, (c) the use of the Easement Area or any activities conducted thereon by Holder, its Agents or Invitees, (d) any release or discharge, or threatened release or discharge, of any Hazardous Material caused or allowed by Holder, its Agents or Invitees, on, in, under or about the Easement Area, any improvements or into the environment, or (e) any failure by Holder to faithfully observe or perform any terms, covenants or conditions of the Recorded Documents to the extent that such terms, covenants or conditions relate to or are triggered by the work to be performed or the facilities to be installed pursuant to this Agreement, except solely to the extent of Claims resulting directly from the active negligence or willful misconduct of San Francisco or San Francisco's authorized representatives. In addition to Holder's obligation to indemnify San Francisco, Holder specifically acknowledges and agrees that it has an immediate and independent obligation to defend San Francisco from any claim that actually or potentially falls within this indemnity provision even if such allegation is or may be groundless, fraudulent or false, which obligation arises at the time such claim is tendered to Holder by San Francisco and continues at all times thereafter. The foregoing indemnity shall include reasonable attorneys', experts' and consultants' fees and costs, investigation and remediation costs and all other reasonable costs and expenses incurred by the indemnified parties, including damages for decrease in the value of the Easement Area and claims for damages or decreases in the value of adjoining property. With respect to any settlement of Claims negotiated by Holder on behalf of, or for the benefit of, San Francisco, San Francisco's approval thereof shall not be unreasonably withheld or delayed (subject to San Francisco's required review and approval processes), provided the proposed settlement would not diminish San Francisco's property rights or increase existing or future liabilities and provided further that to the extent that San Francisco law requires approval by the Board of Supervisors such approval shall be at the Board's sole discretion. Holder's obligations under this Section shall survive the expiration or other termination of this Agreement.

15. **Waiver of Claims.** Neither San Francisco nor any of its commissions, departments, boards, officers, agents or employees shall be liable for any damage to real or personal property or for any bodily injury to or death of persons, resulting or arising from the condition of the Easement Area or its use by Holder or its agents, employees, contractors, consultants, vendors or employees, and Holder on behalf of itself and its successors and assigns, waives its right to recover from, and forever releases and discharges, San Francisco and its officers, agents and employees, and their respective heirs, successors, administrators, personal representatives and assigns, from any and all claims for such damage, injury or death.

16. **As-Is Condition of Easement Area.** Holder accepts the Easement Area in its "AS IS" condition, without representation or warranty of any kind by San Francisco, its officers, agents or employees, and subject to all applicable laws, rules and ordinances governing the use of the Easement Area. Without limiting the foregoing, this Agreement is made subject to any and all existing and future covenants, conditions, restrictions, easements, encumbrances and other title matters affecting the Easement Area, whether foreseen or unforeseen, and whether such matters are of record or would be disclosed by an accurate inspection or survey.

17. **No Joint Ventures or Partnership.** This Agreement does not create a partnership or joint venture between San Francisco and Holder as to any activity conducted by Holder on, in or relating to the Easement Area.

18. **Notices and Emergency Contacts.**

(a) **Notices.** Except as expressly stated below, all notices, demands, claims, consents or approvals given hereunder ("notice") shall be in writing and shall be personally delivered, or sent by a reputable commercial courier service that provides next business day delivery services, provided that next business day service is requested, or by United States first-class mail, postage prepaid, addressed as provided below. Any notice that is addressed in accordance with this Section and transmitted by a method that provides confirmation of delivery or attempted delivery shall be deemed received on the date of the earliest of actual delivery, first attempted delivery, or refusal of delivery.

Any notice to San Francisco shall be addressed to San Francisco at the then current published mailing address for SFPUC's executive offices, which can be determined by visiting SFPUC's website (currently www.sfwater.org) or by calling SFPUC's main telephone number (currently (415) 554-3155), with a copy to the City Attorney (Attn: Real Estate Team) at the City Attorney's then current mailing address, which can be determined by visiting San Francisco's website (currently www.sfgov.org), and with a copy to such other address(es) as San Francisco may direct in a written notice to Holder from time to time. San Francisco's addresses for notices as of the date of this Agreement are set forth below.

Any notice to Holder shall be addressed to Holder at the address(es) set forth below or such other address(es) as Holder may direct in a written notice to San Francisco from time to time.

San Francisco or SFPUC:

Real Estate Services
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 10th Floor
San Francisco, California 94102
Attn: Real Estate Director
Re: McHenry Avenue (Parcel #656)

with a copy to:

San Francisco City Attorney's Office
One Dr. Carlton B. Goodlett Place, Rm 234
San Francisco, CA 94102-4682
Attn: Real Property/Finance Team
Re: SFPUC Parcel #656

Holder:

City of Modesto
1010 10th Street
Modesto, CA 95354
Attn: City Engineer

Correctly addressed notices sent by a method that provides confirmation of delivery and attempted delivery shall be deemed given upon the earlier of confirmed first attempted delivery or confirmed delivery.

To facilitate communication, the preference is for Parties to provide notice through multiple methods, which may include email, text or fax as a duplicative method; however, neither fax, text, nor email shall be a sufficient method of providing notice.

(b) **Emergency Contacts.** Each party shall designate an emergency contact, to be contacted in the event of an emergency involving actual or imminent damage to property or injury to persons on or about the Easement Areas. As of the date of this Agreement such contacts are:

San Francisco or SFPUC: Power House Emergency Line (209) 989-2199

Holder:

City of Modesto (209) 577-5200

19. **Severability.** If any provision of this Agreement or the application thereof to any person, entity or circumstance shall be invalid or unenforceable, the remainder of this Agreement, or the application of such provision to persons, entities or circumstances other than those as to which it is invalid or unenforceable, shall not be affected thereby, and each other provision of this Agreement shall be valid and be enforceable to the fullest extent permitted by law, except to the extent that enforcement of this Agreement without the invalidated provision would be unreasonable or inequitable under all the circumstances or would frustrate a fundamental purpose of this Agreement.

20. **Cooperative Drafting.** This Agreement has been drafted through a cooperative effort of both parties, and both parties have had an opportunity to have this Agreement reviewed and

revised by legal counsel. No party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

21. Covenants Run with the Land. The covenants of this Agreement are equitable servitudes and covenants running with the land, and shall bind and benefit San Francisco and Holder and their respective successors in interest.

22. General Provisions. (a) This Agreement may be amended or modified only by a writing signed by San Francisco and Holder. (b) No waiver by any party of any of the provisions of this Agreement shall be effective unless in writing and signed by an officer or other authorized representative, and only to the extent expressly provided in such written waiver. No waiver shall be deemed a subsequent or continuing waiver of the same, or any other, provision of this Agreement. (c) Except as expressly provided to the contrary, all approvals, consents, elections and determinations to be made by San Francisco hereunder may be made in the sole and absolute discretion of San Francisco acting through SFPUC's General Manager or his or her designee. (d) This instrument (including the exhibit(s) hereto) contains the entire agreement between the parties and all prior written or oral negotiations, discussions, understandings and agreements are merged herein. (e) The section and other headings of this Agreement are for convenience of reference only and shall be disregarded in the interpretation of this Agreement. (f) Time is of the essence in all matters relating to this Agreement. (g) This Agreement shall be governed by California law and San Francisco's Charter. (h) If either party commences an action against the other or a dispute arises under this Agreement, the prevailing party shall be entitled to recover from the other reasonable attorneys' fees and costs. For purposes hereof and for purposes of the indemnifications set forth herein, reasonable attorneys' fees of San Francisco shall be based on the fees regularly charged by private attorneys in San Francisco with comparable experience notwithstanding the San Francisco's use of its own attorneys. (i) If Holder consists of more than one person then the obligations of each person shall be joint and several. (j) Subject to the prohibition against assignments or other transfers by Holder hereunder, this Agreement shall be binding upon and inure to the benefit of the parties and their respective heirs, representatives, successors and assigns. (k) The Recitals set forth on the first page and the exhibits referenced in and attached to this Agreement are incorporated into this Agreement. (l) Each of the persons executing this Agreement on behalf of Holder are authorized to do so. (m) This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. (n) Use of the word "including" or similar words shall not be construed to limit any general term, statement, or other matter in this Agreement, whether or not language of non-limitation, such as "without limitation" or similar words, are used.

[Remainder of page intentionally left blank.]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the dates set forth below.

CITY:

CITY AND COUNTY OF SAN FRANCISCO,
a municipal corporation

HARLAN L. KELLY, JR.
General Manager
San Francisco Public Utilities Commission

Date: _____

HOLDER:

CITY OF MODESTO, a municipal
corporation

By: _____

Name: _____

Its: _____

Date: _____

Resolution 2015-166, May 26, 2015

APPROVED AS TO FORM:

DENNIS J. HERRERA
City Attorney

By: _____

Carolyn Johnson Stein
Deputy City Attorney

Authorized by
San Francisco Public Utilities Commission

Resolution No. _____

Adopted: _____

Attested: _____

Secretary
San Francisco Public Utilities
Commission

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA)
)ss.
COUNTY OF STANISLAUS)

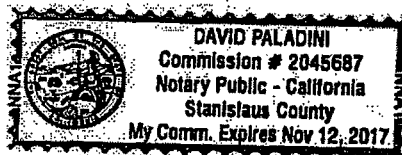
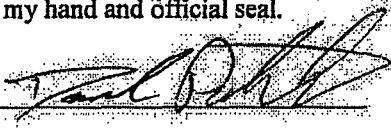
On 6/4/15, before me, DAVID PALADINI, NOTARY PUBLIC
(here insert name and title of the officer)

personally appeared JAMES N. HOLGERSON, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature



(Seal)

[Attach copy of Board of Supervisors resolution]

EXHIBIT A

Description of Easement Area

[See attached]

EXHIBIT "A"
LEGAL DESCRIPTION

All that certain real property situate in the City of Modesto, County of Stanislaus, State of California, lying within the Southwest quarter of Section 4, Township 3 South, Range 9 East, Mount Diablo Meridian, described as follows:

ALL that portion of that certain 110.00 foot wide tract of land (herein after referred to as Hetch Hetchy Aqueduct right of way) conveyed to the City and County of San Francisco by Grant Deed filed in the Office of the Recorder of the County of Stanislaus on February 13, 1924 in Book 53 of Official Records at Page 491, being more particularly described as follows:

COMMENCING at the Intersection point of the West line of said Section 4 and the surveyed center line of the Hetch Hetchy Aqueduct right of way, said point bears North $01^{\circ}13'55''$ West, a distance of 875.40 feet as same is shown on that amended map filed for record in the Office of the Recorder of the County of Stanislaus on January 27, 2006 in Book 54 of Parcel Maps at Page 28; thence North $70^{\circ}11'10''$ East along the center line of said surveyed center line of the Hetch Hetchy Aqueduct right of way, a distance of 58.02 feet to a point on the East line of that parcel of land conveyed to the State of California (State Highway 108) by Deed recorded July 13, 2001 as Document Number 63580 and being the TRUE POINT OF BEGINNING of this description; thence North $01^{\circ}13'55''$ West along last said line, a distance of 58.02 feet to angle point in last said line and a point on the North line of said Hetch Hetchy Aqueduct right of way; thence North $70^{\circ}11'10''$ East along last said line, a distance of 32.97 feet to a point of intersection with the East right of way line of that certain 12.00 foot wide strip dedicated to the City of Modesto on last said Parcel Map; thence South $01^{\circ}13'55''$ East, a distance of 116.05 feet to a point on the Southerly line of said Hetch Hetchy Aqueduct right of way; thence South $70^{\circ}11'10''$ West along last said line, a distance of 32.97 feet to a point on the East line of said State Highway 108; thence North $01^{\circ}13'55''$ West along last said line, a distance of 58.03 feet to the point of beginning of this description.

CONTAINING 3,627 square feet more or less

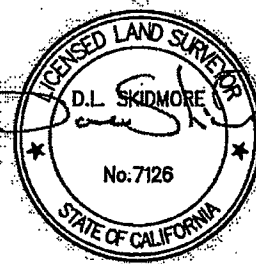


EXHIBIT B

Plat of Easement Area

[see attached]

CLARATINA AVENUE



PARCEL "1"

EXIST. RIGHT OF WAY LINE

SECTION LINE

86.25'

55.00'

S70°11'10"W

32.97'

SURVEYED CENTER LINE OF
110' WIDE RIGHT OF WAY
CITY AND COUNTY OF
SAN FRANCISCO

110' HETCH HETCHY
RIGHT-OF-WAY

BOOK 53, OFFICIAL RECORDS, PG. 491

P.O.B.

S70°11'10"W
58.02'

P.O.C.

N01°13'55"W

58.02'

N01°13'55"W 116.05'

3,627 SQ. FT.

S01°13'55"E

58.03'

N70°11'10"E

EXIST. RIGHT OF WAY LINE

PARCEL "1"

54 - PM - 28

(MCHENRY AVENUE)
STATE HIGHWAY 108

N01°13'55"W 875.40'

86.25'

SW. COR. SEC. 4
T.3 S., R. 9 E., M.D.M.



DRAWN:	DLS
DATE:	5/11/15
SCALE:	1" = 30'
JOB #:	910-13
DWG:	ExB(HH)(r1)

PLAT TO ACCOMPANY LEGAL DESCRIPTION

A PORTION OF THE SOUTHWEST QUARTER
OF SECTION 4, T. 3 S., R. 9 E., M.D.M.
CITY OF MODESTO, CALIFORNIA



**ASSOCIATED
ENGINEERING
GROUP**

4206 TECHNOLOGY DRIVE, SUITE 4, MODESTO, CA 95356
PHONE: (209) 545-3390 FAX: (209) 545-3875 www.assoceng.com

EXHIBIT C

Description of San Francisco's Property

Real property in the City of Modesto, County of Stanislaus, State of California, described as:

That real property conveyed by H. Leslie Say and his wife, Mona Say, to the City and County of San Francisco, a municipal corporation, by indenture dated September 19, 1923, and recorded February 13, 1924 in Book 53 of Official Records of Stanislaus County, at page 491, which real property is known in the records of the San Francisco Public Utilities Commission as Parcel 656,

EXCEPTING THEREFROM:

The portion of such real property that was conveyed by the City and County of San Francisco to the State of California by Grant Deed dated August 19, 1988, recorded March 16, 1989 as Instrument 018241 in Stanislaus County Records.

ACCEPTANCE

This is to certify that the interest in real property conveyed by this deed is hereby accepted by order of the Modesto City Council Resolution No. 96-331, adopted June 11, 1996, and the grantee consents to recordation thereof.

Date: May 26, 2015

By: 

VICKEY DION, Acting City Engineer

City of Modesto

PUBLIC UTILITIES COMMISSION

City and County of San Francisco

RESOLUTION NO. 15-0156

WHEREAS, The City and County of San Francisco (City), through its Public Utilities Commission (SFPUC) owns certain real property consisting of a portion of SFPUC Parcel 656 adjacent to its intersection with State Highway 108 (also known as McHenry Avenue) between Claratina and Grecian Avenues (SFPUC Property) in the City of Modesto (Modesto), in Stanislaus County, California; and

WHEREAS, The SFPUC maintains two electrical transmission towers, overhead power lines, valve boxes, and three subsurface water transmission pipelines (San Joaquin Pipeline Nos. 1, 2, and 3); and

WHEREAS, JWG McHenry, LLC (Developer) owns approximately 6.17 acres (McHenry Property) that the SFPUC Property bisects; and

WHEREAS, As a condition of its approval of Developer's plans to develop the McHenry Property (Project), Modesto required Developer to widen McHenry Avenue between Claratina and Grecian Avenues, including installing street, curb, gutter, and sidewalk improvements (Improvements) within an approximately 3,627 square foot portion of the SFPUC Property (Easement Area); and

WHEREAS, San Francisco Charter Section 8B.121(a) grants the Commission the exclusive charge of the real property assets under the Commission's jurisdiction and provides that the Commission may transfer real property interests declared to be surplus to the needs of any utility; and

WHEREAS, The SFPUC is willing to allow the Developer to construct the Improvements within the Easement Area at the Developer's expense and to approve and recommend that the City convey an easement to Modesto for roadway and sidewalk use (Easement), provided that (i) the Improvements include a protective bridge or cap (Bridge) over the SFPUC's subsurface water transmission pipelines; (ii) the Easement is conveyed in an agreement in form acceptable to City, reserving the SFPUC's right to use the Easement Area for uses that are compatible with the Easement; (iii) Modesto accept ownership of the Improvements and responsibility for maintenance and repair; and (iv) City receive payment for the fair market value of the Easement; and

WHEREAS, Modesto maintains McHenry Avenue under an agreement with the California Department of Transportation (Caltrans), Modesto is willing to accept ownership and responsibility for maintenance of the Improvements, and such arrangement is acceptable to Caltrans; and

WHEREAS, The SFPUC received an appraisal for the Easement prepared by Giomi, Inc., dated July 22, 2014, which was updated on June 4, 2015 and approved by the City's Director of Real Property, in the amount of \$35,000 (Appraisal); and

WHEREAS, The fair market value of the Easement was established based on the appraised value set forth in the Appraisal; and

WHEREAS, SFPUC staff and Developer have negotiated proposed terms and conditions of an Agreement for Sale of Real Estate (Sale Agreement) that is part of the record before this Commission, by which Developer agrees to pay as the purchase price for the Easement the appraised value, and City agrees to convey the Easement to Modesto; and

WHEREAS, SFPUC staff and Modesto have negotiated proposed terms and conditions of an easement agreement that is part of the record before this Commission, by which Modesto accepts ownership of the Improvements, including the Bridge, and responsibility for operation, maintenance and repair of the Improvements, and City conveys to Modesto an easement for such purposes (Easement Agreement); and

WHEREAS, by Resolution No. 2015-166 adopted on May 26, 2015, Modesto's City Council approved the Easement Agreement, and Modesto's City Manager has executed the Easement Agreement on behalf of Modesto; and

WHEREAS, The Project could result in temporary and permanent impacts for which mitigation measures were identified in the City of Modesto Urban Area General Plan Update Master Environmental Impact Report (Modesto General Plan EIR) which was certified by the Modesto City Council on October 14, 2008; and

WHEREAS, To implement the Project the City of Modesto must implement the mitigation measures identified in the Modesto General Plan EIR and the mitigation measures and conditions of approval adopted on December 10, 2013 by the City of Modesto Director of Community and Economic Development to mitigate impacts to a less than significant level, and some of the mitigation measures would be implemented on SFPUC Right of Way land; and

WHEREAS, The Modesto General Plan EIR has been made available for review by this Commission and the public and are a part of the record of this approval by this Commission. The SFPUC, as a responsible agency under CEQA, has considered the Modesto General Plan EIR, including the environmental effects of the Project and the mitigation measures to reduce the significant adverse environmental impacts of the project to a less than significant level. The Modesto General Plan EIR and the other materials that are part of the record of this approval are available for public review at the SFPUC Real Estate Services Division, 525 Golden Gate Avenue, 10th Floor, which is the custodian of records for the requested permanent Easement; and

WHEREAS, No new information has come to light that would affect the conclusions of the Modesto General Plan EIR with respect to the Project, or the conclusions of the Modesto General Plan EIR; now, therefore, be it

RESOLVED, That the SFPUC has reviewed and considered the City of Modesto General Plan EIR and finds that this approval is within the scope of the Project and of the mitigation measures evaluated in the Modesto General Plan EIR, and that these documents are adequate for its use in granting the permanent easement; and be it

FURTHER RESOLVED, That since the Modesto General Plan EIR was finalized, there have been no substantial changes in the Project and no substantial changes in the Project circumstances that would require major revisions to the General Plan EIR due to the involvement of new significant environmental effects or an increase in the severity of previously identified significant impacts, and there is no new information of substantial importance that would change the conclusions set forth in the Modesto General Plan EIR; and be it

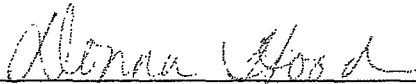
FURTHER RESOLVED, That the City of Modesto has already adopted the mitigation measures recommended in the Modesto General Plan EIR, and has authority to implement the mitigation measures or to seek any required approvals for the mitigation measures, and the SFPUC has no direct authority or responsibility to implement the mitigation measures other than the City of Modesto; and be it

FURTHER RESOLVED, That this Commission has determined that the Easement is surplus to the needs of any of the utilities under its jurisdiction, provided that the conditions set forth above are satisfied, and authorizes the General Manager to recommend to the Board of Supervisors approval of the conveyance of this Easement to Modesto for \$35,000 paid by Developer; and be it

FURTHER RESOLVED, That this Commission finds that offering the Easement for sale by competitive bidding is impractical given that Modesto has the power of eminent domain, Developer is willing to pay full appraised value for the Easement, Modesto, Developer and Caltrans are the only potential purchasers of the Easement for roadway and sidewalk purposes, and Caltrans has declined to acquire the Easement; and be it

FURTHER RESOLVED, That this Commission approves the terms and conditions of the Sale Agreement and Easement Agreement and authorizes the General Manager of the SFPUC and/or the City Director of Property, following Board of Supervisors approval of conveyance of the Easement, to execute the Sale Agreement and Easement Agreement and enter into any amendments or modifications to the Sale Agreement and Easement Agreement, including without limitation, modification, addition, or deletion of exhibits and to enter into any related documents, instruments, memorandum, or other agreements reasonably necessary to consummate the transaction contemplated in the Sale Agreement and Easement Agreement, that the General Manager determines, in consultation with the City Attorney, are in the best interests of the City; do not materially increase the liabilities or obligations of the City or materially diminish the benefits to the City; are necessary or advisable to effectuate the purposes and intent of the Easement Agreement or this Resolution; and comply with all applicable laws, including the City Charter.

I hereby certify that the foregoing resolution was adopted by the Public Utilities Commission at its meeting of July 14, 2015.



Secretary, Public Utilities Commission



SAN FRANCISCO PLANNING DEPARTMENT

General Plan Referral

RECEIVED

OCT 14 2015

REAL ESTATE DIV.

1650 Mission St.
Suite 400
San Francisco,
CA 94103-2479

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Date: October 15, 2015
Case No. Case No. 2015-011581GPR
Sale of San Francisco Public Utilities Commission (SFPUC) Easement
to City of Modesto, CA

Block/Lot No.: [Stanislaus County Assessor's Parcel No. 082-010-008 & 082-010-003]
McHenry Avenue, between Claratina Avenue & Grecian Avenue, Modesto, CA

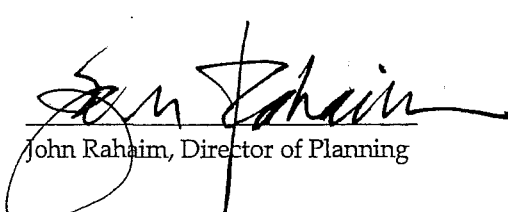
Project Sponsor: John Updike
Director of Real Estate, SFPUC
25 Van Ness Ave., Suite 400
San Francisco, CA 94102

Applicant: Marta Bayol
Department of Real Estate, SFPUC
25 Van Ness Ave., Suite 400
San Francisco, CA 94102

Staff Contact: Audrey Harris – (415) 575-9136
audrey.harris@sfgov.org

Recommendation: Find the project, on balance, in conformity with
the General Plan

Recommended
By:


John Rahaim, Director of Planning

PROJECT DESCRIPTION

The proposed project involves the conveyance of an easement of approximately 3,627 square feet of property owned by the City and County of San Francisco to the City of Modesto for the fair market value of \$35,000 to be paid by JWG McHenry LLC. This easement will allow the developer to make street, curb and gutter and sidewalk improvements within the approximately 3,627 square foot portion of the San Francisco Public Utilities Commission (SFPUC) property. The easement is to improve and widen State

Highway 108 (McHenry Avenue) and is necessary for the City of Modesto to improve traffic conditions along McHenry Avenue in Modesto.

SITE DESCRIPTION AND PRESENT USE

SFPUC owns in fee the property on each side of McHenry Avenue constituting portions of SFPUC parcels 656 and 657. The property is currently vacant.

ENVIRONMENTAL REVIEW

The SFPUC adopted responsible agency findings based on the determination by the City of Modesto that the project conformed to the City of Modesto General Plan Update Master EIR on July 14, 2015 under Commission Resolution Number 15-0156 to approve the proposed sale of the 3,627 square foot easement.

GENERAL PLAN COMPLIANCE AND BASIS FOR RECOMMENDATION

The Project is consistent with the Eight Priority Policies of Planning Code Section 101.1 as described in the body of this letter and is, on balance, **in-conformity** with the following Objectives and Policies of the General Plan:

URBAN DESIGN ELEMENT

POLICY 2.8

Maintain a strong presumption against the giving up of street areas for private ownership or use, or for construction of public buildings.

The sale of the easement will not affect property located within the City & County of San Francisco. The easement does not in itself enable public access and its sale would not constitute the giving up of street area. The easement is to improve and widen State Highway 108 (McHenry Avenue) and is necessary for the City of Modesto to improve traffic along McHenry Avenue in Modesto.

Eight Priority Policies Findings

The Project is to quitclaim an unneeded Sewer Easement. Overall, it is consistent with Planning Code Section 101.1 in that:

1. That existing neighborhood-serving retail uses be preserved and enhanced and future opportunities for resident employment in and ownership of such businesses enhanced.
The project would have no adverse affect on the neighborhood-serving retail uses or opportunities for employment in or ownership of such businesses.
2. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhood.
The project would have no adverse affect on the City's housing stock or on neighborhood character.

GENERAL PLAN REFERRAL
SALE OF SFPUC EASEMENT

CASE NO. 2015-011581GPR

3. That the City's supply of affordable housing be preserved and enhanced.
The project would have no adverse affect on the City's supply of affordable housing.
4. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.
The project would not impede Muni transit service or overburden streets or neighborhood parking.
5. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for residential employment and ownership in these sectors be enhanced.
The project would not adversely affect the industrial or service sectors or future opportunities for resident employment or ownership in these sectors.
6. That the City achieve the greatest possible preparedness to protect against injury and loss of life in an earthquake.
The easement is to improve and widen State Highway 108 (McHenry Avenue) and is necessary for the City of Modesto to improve traffic along McHenry Avenue in Modesto. The easement will positively improve preparedness against injury and loss of life within the City of Modesto in an earthquake and would comply with applicable safety standards.
7. That landmarks and historic buildings be preserved.
The project would have no adverse affect on preservation of landmarks or historic buildings. The property at McHenry Avenue in Modesto lacks historic significance and integrity according to an evaluation.
8. That our parks and open space and their access to sunlight and vistas be protected from development.
The project would have no adverse affect on parks and open space or their access to sunlight or vistas.

RECOMMENDATION:	Find the Project, on balance, in-conformity with the General Plan
------------------------	--

I:\Citywide\General Plan\General Plan Referrals\2015\ 2015-011581GPR Sale of PUC Easement-City of Modesto.doc



San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 10th Floor
San Francisco, CA 94102
T 415.487.5226

March 23, 2016

Easement Conveyance
City of Modesto

Honorable Board of Supervisors
City & County of San Francisco
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

Dear Board Members:

The City and County of San Francisco (City), by and through its Public Utilities Commission (SFPUC), owns real property adjacent to State Highway 168, also known as McHenry Avenue, in the City of Modesto, Stanislaus County (SFPUC Property). The SFPUC maintains two electrical transmission towers, overhead power lines, and valve boxes on the surface of the SFPUC Property and three water transmission pipelines (San Joaquin Pipeline Nos. 1 through 3) underneath the surface of the SFPUC Property. As a condition of a development approval, the City of Modesto required JWG McHenry, LLC (Developer) to widen McHenry Avenue between Claratina and Grecian Avenues, including installing street, curb, gutter and sidewalk improvements within an approximately 3,627 square feet portion of the SFPUC Property. SFPUC is willing to allow the Developer to construct the improvements within the SFPUC Property at the Developer's expense provided that the City of Modesto accepts ownership of the improvements and accepts an easement on the SFPUC Property for such use.

On July 14, 2015, the Commission approved Resolution No. 15-0156 authorizing an agreement for the sale of real estate between the City and County of San Francisco on behalf of the SFPUC and JWG McHenry to convey a permanent easement to the City of Modesto for \$35,000 to be paid by JWG McHenry LLC.

Through this proposed legislation, we are asking that the Board of Supervisors:

1. Approve and authorize the acquisition of the easement.
2. Adopts and incorporates findings under the California Environmental Quality Act ("CEQA"), which were previously adopted by the City of Modesto acting, as the lead agency.

2016 APR -5 PM 4:17
RECEIVED
BOARD OF SUPERVISORS
SAN FRANCISCO

Edwin M. Lee
Mayor

Francesca Viator
President

Anson Moran
Vice President

Ann Moller Caen
Commissioner

Vince Courtney
Commissioner

Ike Kwon
Commissioner

Harlan L. Kelly, Jr.
General Manager

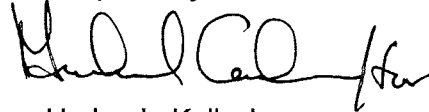


3. Adopts and incorporates findings that the conveyance of the easement is consistent with the City's General Plan and eight priority policies of City Planning Code Section 101.1 per the General Plan referral findings dated October 15, 2015.

4. Approve the Sale Agreement and authorize the Director of Property and/or SFPUC General Manager to execute documents, make certain modifications, and take certain actions in furtherance of the resolution.

Should you have any questions or need additional information, do not hesitate to call Rosanna Russell of our office at 415-487-5213.

Respectfully,

A handwritten signature in black ink, appearing to read "Harlan L. Kelly Jr.", with a stylized flourish at the end.

Harlan L. Kelly Jr.
PUC General Manager

cc: Naomi Kelly, City Administrator

w/ Resolution;
Rosanna Russell SFPUC

**MODESTO CITY COUNCIL
RESOLUTION NO. 2015-166**

RESOLUTION APPROVING THE EASEMENT AGREEMENT WITH SAN FRANCISCO PUBLIC UTILITIES COMMISSION AND AUTHORIZING THE CITY MANAGER OR HIS DESIGNEE TO EXECUTE THE AGREEMENT AND AUTHORIZING THE CITY CLERK TO RECORD THE AGREEMENT WITH THE STANISLAUS COUNTY RECORDER'S OFFICE

WHEREAS, JWG McHenry LLC ("Developer") is the current owner of the recently-constructed Infinity car dealership located at 4130 McHenry Avenue, and

WHEREAS, one of the conditions of approval of the project includes the widening of McHenry Avenue between Grecian Avenue and Claratina Avenue, and

WHEREAS, the Hetch-Hetchy power lines and water pipes, governed by the San Francisco Public Utility Commission ("SFPUC"), cross McHenry Avenue adjacent to the Infinity car dealership, and

WHEREAS, prior to providing a permit to the Developer to construct the road improvements over the Hetch-Hetchy water pipes, the SFPUC is requiring the City of Modesto to approve an Easement Agreement, and

WHEREAS, the Agreement requires the City of Modesto to maintain the road improvements above the water pipes, and

WHEREAS, in an effort to assist the Developer so that he can complete the required improvements, staff recommends that the City Council approve the agreement,

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Modesto that it hereby approves this Easement Agreement dated May 26, 2015 with the San Francisco Public Utility Commission.

The foregoing resolution was introduced at a regular meeting of the Council of the City of Modesto held on the 26th day of May, 2015, by Councilmember Lopez, who moved its adoption, which motion being duly seconded by Councilmember Gunderson, was upon roll call carried and the resolution adopted by the following vote:

AYES: Councilmembers: Cogdill, Gunderson, Kenoyer, Lopez, Madrigal,
Zoslocki, Mayor Marsh

NOES: Councilmembers: None

ABSENT: Councilmembers: None

ATTEST:


STEPHANIE LOPEZ, City Clerk

(SEAL)

APPROVED AS TO FORM:

By: 
ADAM U. LINDGREN, City Attorney

**MODESTO CITY COUNCIL
RESOLUTION NO. 2008-582**

A RESOLUTION TO MAKE CERTAIN FINDINGS CONCERNING MITIGATION MEASURES, MAKE FINDINGS CONCERNING ALTERNATIVES, ADOPT A STATEMENT OF OVERRIDING CONSIDERATIONS, AND CERTIFY THE FINAL MASTER ENVIRONMENTAL IMPACT REPORT FOR THE URBAN AREA GENERAL PLAN (SCH No. 2007072023)

WHEREAS, on March 4, 2003, the City Council of the City of Modesto recertified the Final Master Environmental Impact Report ("Master EIR") (SCH No. 1999082041) for the Modesto Urban Area General Plan, and

WHEREAS, the City's Community and Economic Development Department ("City") prepared an amendment to the Urban Area General Plan ("Project"), and

WHEREAS, the City, on July 8, 2007, published a Notice of Preparation for the Project, which identified potentially significant environmental impacts attributable to the Project, on which basis the City determined that an Environmental Impact Report ("EIR") was required for the Project, and

WHEREAS, on July 18, 2007, the City held a public scoping meeting to receive public comments on the scope and content of the Master EIR, and

WHEREAS, the City published and distributed a Draft Master EIR for the Project (SCH No. 2007072023) for public comment on March 24, 2008, in accordance with Section 21091 of the California Environmental Quality Act ("CEQA"), and

WHEREAS, the Draft Master EIR was available for public comment for a period of 45 days as required by Section 21091 of CEQA, the close of the public comment period being May 9, 2008, and

WHEREAS, during the 45-day public comment period the City received thirteen letters commenting on the Draft Master EIR, and

WHEREAS, the City prepared written responses to all written comments received on the Draft Master EIR, said responses being contained in a Final Master EIR for the Urban Area General Plan Update (SCH No. 2007072023) ("Final MEIR") prepared pursuant to Section 15089 of the CEQA Guidelines, and

WHEREAS, the Final MEIR was published and distributed on August 4, 2008, and consists of the Draft EIR, a list of commentors, copies of all written comments received, responses to those comments that raise environmental issues, and any revisions to the text of the Draft Master EIR made in response to the comments, as required by Section 15132 of the CEQA Guidelines, and

WHEREAS, CEQA requires that, in connection with the approval of a project for which an EIR has been prepared which identifies one or more significant environmental effects, the decision-making agency make certain findings regarding those effects, and

WHEREAS, a public hearing on the Project was held by the Planning Commission on September 8, 2008, at 7:00 p.m. in the Chambers, Tenth Street Place, 1010 Tenth Street, Modesto, California, at which hearing evidence both oral and documentary was received and considered, and

WHEREAS, the Planning Commission has received and considered the Final MEIR for the Urban Area General Plan Update (SCH No. 2007072023) that analyzed the potential environmental effects of the proposed Project and adopted a resolution recommending the City Council make certain findings, adopt a statement of overriding considerations, and certify the Final Master Environmental Impact Report, and

WHEREAS, a public hearing on the Project was held by the City Council on October 14, 2008, at 5:30 p.m., in the Chambers, Tenth Street Place, 1010 Tenth Street, Modesto, California, at which hearing evidence, both oral and documentary, was received and considered, and

WHEREAS, the City Council has received and considered the Final MEIR for the Urban Area General Plan Update (SCH No. 2007072023) that analyzed the potential environmental effects of the proposed Project.

NOW, THEREFORE, BE IT RESOLVED by the City Council, that it hereby has reviewed and analyzed the Final MEIR and other information in the record, and has taken such other actions as are necessary and appropriate to make the following findings in respect to the Final MEIR, and make said findings:

1. That the Final MEIR has been completed in compliance with CEQA; that the City Council has reviewed and analyzed the Final MEIR and other information in the record and has considered the information contained therein, including the written and oral comments received at the public hearings on the Final MEIR and the Project, prior to acting upon or approving the Project; and that the Final MEIR represents the independent judgment of the City of Modesto; and
2. That the Findings and recommendations set forth in **Exhibit "A"**, and incorporated herein by reference, are made by the City Council as the City's findings under the California Environmental Quality Act ("CEQA") (Pub. Resources Code § 21000 *et seq.*) and the CEQA Guidelines (Cal. Code Regs., title 14, §15000 *et seq.*) relating to the Project. The Findings provide the written analysis and conclusions of the City Council regarding the Project's environmental impacts, mitigation measures and alternatives to the Project.
3. That pursuant to Public Resources Code Section 21081 and CEQA Guidelines Sections 15091 *et seq.*, the City Council of the City of Modesto adopts and makes the following statement of overriding considerations regarding the remaining unavoidable impacts of the Project and the anticipated economic, social and other benefits of the Project.

a. Significant Unavoidable Impacts

With respect to the foregoing findings, as set forth in **Exhibit A**, and in recognition of those facts which are included in the record, the City has determined the following:

- i. that the Project will cause significant, unavoidable impacts to Traffic and Circulation, Generation of Noise; Agricultural Lands, Archaeological and Historical Sites, and Energy, as described in **Exhibit B**.
- ii. that the Project will contribute to significant, unavoidable cumulative impacts to Air Quality, Generation of Noise, Agricultural Lands, Long-Term Water Supplies, Sensitive Wildlife and Plant Habitat, Storm Drainage, Energy, Visual Resources, and Climate Change, as described in **Exhibit B**.

These impacts cannot be avoided or substantially reduced by feasible changes or alterations to the Project, other than the changes or alterations already adopted.

b. Overriding Considerations

The City Council specifically adopts and makes this Statement of Overriding Considerations that this Project includes all feasible measures that would eliminate or substantially lessen the significant impacts of the Project on the environment, and that the remaining significant, unavoidable impacts of the Project are acceptable in light of the environmental, economic, social and other considerations set forth herein because the benefits of the Project outweigh the significant and adverse impacts of the Project. The City Council finds that each of the overriding considerations set forth below, and each of the overriding considerations set forth in **Exhibit B**, constitutes a separate and independent ground for finding that the benefits of the Project outweigh its significant adverse environmental impacts and sets forth an overriding consideration warranting approval of the Project. These matters are supported by evidence in the record.

c. Benefits of Proposed Project

The City Council has considered the Final Master EIR, the public record of proceedings on the proposed Project and other written materials presented to the City as well as oral and written testimony at all public hearings related to the Project, and does hereby determine that implementation of the Project as specifically provided in the Project documents would result in the substantial public benefits set forth below and in **Exhibit B**.

- i. The stabilization of City finances by collecting revenues in accordance with State law sufficient to fund construction and maintenance of public infrastructure and services; and
- ii. Accurately reflect the practices and policies of the City Council and provide improved guidance for future development; and
- iii. Incorporate new policies and information from the most recent sewer, water, and storm drainage master plans into the Urban Area General Plan; and
- iv. Incorporate new information from the traffic model into the Urban Area General Plan; and
- v. Update the 1995 Urban Area General Plan, as amended, to allow its continued use until such time as a comprehensive general plan update is undertaken and completed.

The City Council has weighed the benefits of the proposed Project against its unavoidable environmental risks and adverse environmental effects identified in the Final MEIR and hereby determines that those benefits outweigh the risks and adverse environmental effects and, therefore, further determines that these risks and adverse environmental effects are acceptable.

- 4. The City Council hereby finds and recognizes that the Final MEIR contains additions, clarifications, modifications and other information in its responses to comments on the Draft Master EIR for the Project and also incorporates information obtained by the City since the Draft Master EIR was issued. This Council hereby finds and determines that such changes and additional information are not significant new information as that term is defined under the provisions of the California Environmental Quality Act, because such changes and additional information do not indicate that any new significant environmental impacts not already evaluated would result from the Project and do not reflect any substantial increase in the severity of any environmental impact; that no feasible mitigation measures considerably different from those previously analyzed in the Draft Master EIR have been proposed that would lessen significant environmental impacts of the Project; and that no feasible alternatives considerably different from those analyzed in the Draft Master EIR have been proposed that would lessen significant environmental impacts of the Project. Accordingly, this Council hereby finds and determines that recirculation of the Final MEIR for further public review and comment is not warranted; and
- 5. The City Council does hereby designate the Community and Economic Development Director of the City of Modesto, at his office at 1010 Tenth Street, Modesto, California 95354, as the custodian of documents and record of proceedings on which the decision is based; and

6. The City Council does hereby make the foregoing findings with respect to the significant effects on the environment of such Project, as identified in the Final MEIR, with the stipulations that all information in these findings is intended as a summary of the full administrative record supporting the Final MEIR, which full administrative record should be consulted for the full details supporting these findings, and that any mitigation measures and/or alternatives that were suggested by commenters to the Draft Master EIR and were not adopted as part of the Final MEIR are hereby expressly rejected for the reasons stated in the responses to the comments set forth in the Final MEIR and elsewhere in the record.

BE IT FURTHER RESOLVED by the City Council that it hereby certifies the Final Master Environmental Impact Report for the Urban Area General Plan Update (SCH No. 2007072023), **attached as Exhibit "C"**.

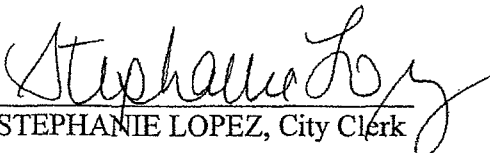
The foregoing resolution was introduced at a regular meeting of the Council of the City of Modesto held on the 14th day of October, 2008, by Councilmember Hawn, who moved its adoption, which motion being duly seconded by Councilmember Marsh, was upon roll call carried and the resolution adopted by the following vote:

AYES: Councilmembers: Hawn, Keating, Lopez, Marsh, O'Bryant, Olsen, Mayor Ridenour

NOES: Councilmembers: None

ABSENT: Councilmembers: None

ATTEST:


STEPHANIE LOPEZ, City Clerk

(SEAL)

APPROVED AS TO FORM:

By: 
SUSANA ALCALA WOOD, City Attorney

EXHIBIT "A"

**STATEMENT OF FINDINGS OF SIGNIFICANT IMPACTS
AND REJECTION OF ALTERNATIVES**

EXHIBIT "B"

STATEMENT OF OVERRIDING CONSIDERATIONS

STATEMENT OF FINDINGS OF SIGNIFICANT IMPACTS AND REJECTION OF ALTERNATIVES

Pursuant to Public Resources Code Section 21081 and Section 15091 of the State CEQA Guidelines (14 California Code of Regulations 15000, et seq.), the City of Modesto cannot approve a project for which an Environmental Impact Report (EIR) has been certified which identifies significant effects on the environment unless it adopts findings with respect to each significant effect. Prior to approving the project, the City must also find that there are specific considerations that make infeasible the project alternatives identified in the EIR.

In Section A below, the City will make the following finding for each of the significant effects identified in the Master EIR:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Section 15091 provides that when a project will have a significant and unavoidable impact, the following finding is to be made relative to mitigation measures:

Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible *the mitigation measures identified in the EIR*. (emphasis added)

This Master EIR contains no discrete mitigation measures. Instead, it relies upon the policies being proposed as part of the Urban Area General Plan (UAGP) to limit potential impacts. Since there are no mitigation measures identified in the Master EIR, this finding cannot be made.

In Section B below, the City will make the following finding regarding each of the alternatives identified in the Master EIR.

Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the Master EIR.

Section 21081 provides that the City may also find that "changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency." That finding does not apply to any of the significant effects identified in the Master EIR.

A. FINDINGS REGARDING SIGNIFICANT IMPACTS

Traffic and Circulation Needs Impact: The project will result in an increase in traffic, with a related reduction in the level of service (LOS) to below LOS D on various streets within the planning area.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

The city has not adopted discrete mitigation measures as part of the Master EIR. However, proposed UAGP update policies described as items TC-17 through TC-64 in Chapter V of the Master EIR will mitigate these effects. In particular, these include policies for efficient use of existing roadways, requirements for enhancing and improving roadways to meet increased demand due to growth, preparation of a Citywide Transportation Improvement Plan, and provision and improvement of facilities for non-auto transportation, including walking, biking, and transit to reduce auto trips.

The Initial Study prepared for each subsequent project under the Master EIR (as required by Public Resources Code Section 21157.1) will determine whether the projected traffic from the subsequent project would exceed the applicable LOS standard under the UAGP and, if so, would require an analysis and mitigation of the excess traffic.

City policies identified as items TC-42 through TC-46 in Master EIR Chapter V applicable in the Redevelopment and Baseline Developed Areas and TC-50 in the Planned Urbanizing Area require that subsequent projects that will exceed the allowable LOS D standard will be subject to additional analyses. Where the project would take place on a road segment projected for LOS F and would cause further substantial degradation of traffic conditions, or would involve adoption of a Specific Plan within a Comprehensive Planning District (CPD), a comprehensive traffic study will be required if the project generates more than 100 peak-hour trips greater than the number of trips expected to occur with development consistent with the UAGP and the MEIR or which requires a general plan amendment in order to assess the level of impact of the project. Under certain circumstances, individual site-specific development will be required to prepare a site access study to identify potential impacts.

These policies will reduce the impact, but not to a less than significant level. No further feasible mitigation is available to reduce this impact to a less than significant level, and the impact remains significant and unavoidable.

The anticipated increase in traffic giving rise to this potential impact is the result of social and economic conditions that favor continued automobile-dependent growth within California and Stanislaus County. State Planning Law, in particular the requirements for housing elements, requires Modesto to plan for its fair share of future housing needs (Government Code Section 65580 et seq.). The City cannot choose to restrict housing opportunities below those identified in its regional housing need allocation. Accordingly, the City is legally bound to plan for additional growth.

Traffic and Circulation Needs Cumulative Impact: The project will contribute to the substantial cumulative impacts of the proposed Stanislaus County Regional Transportation Plan (RTP) road network improvements.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

City policies identified as items TC-17 through TC-64 in Chapter V of the Master EIR would reduce the UAGP's contribution to the cumulative impacts. Nonetheless, there will be cumulative impacts to which Modesto development will make a considerable contribution. These policies will reduce the impact, but not to a less-than-significant level. No further feasible mitigation is available to reduce this impact to a less-than-significant level, and the impact remains significant and unavoidable.

The UAGP traffic and circulation element and the amendments being proposed are consistent with the RTP. StanCOG's current population projection for Modesto in 2025 is 439,750. This is within about 2 percent of the City's estimated capacity under the UAGP of approximately 428,000 residents.

The EIR prepared for StanCOG's 2007 RTP analyzed the potential impacts of the proposed RTP road network improvements. StanCOG analyzed future traffic volumes to 2025 based on its travel demand model. Significance findings were based on whether the RTP projects would result in an LOS in excess of LOS D in urban areas and LOS C in rural areas of the county. StanCOG identified numerous significant and unavoidable impacts that would result from its 2007 RTP.

The anticipated increase in traffic giving rise to this potential cumulative impact is the result of conditions that favor continued automobile-dependent growth within California and Stanislaus County. State Planning Law, in particular the requirements for housing elements, requires the County and its cities, including Modesto, to plan for its fair share of future housing needs (Government Code Section 65580 et seq.). Neither the County nor the city may choose to restrict housing opportunities.

Degradation of Air Quality Cumulative Impact: The SJVAB is an air quality non-attainment area for ozone and particulate matter. Any contribution to air pollution in a non-attainment area is considered a significant cumulative air quality impact. Motorized traffic from development in the City of Modesto would contribute, with motorized traffic from other new development in the County and region, toward a cumulative increase in roadside air pollutant levels on major roads and highways throughout the County. Within the City itself, the traffic analysis and corresponding traffic air pollutant analysis takes into account cumulative traffic volumes and is inherently cumulative in nature:

The traffic study data includes cumulative traffic volumes which were utilized as an input to the air quality modeling analysis.

Due to the size of Modesto and the future growth projected under its General Plan, it will make a considerable contribution to this cumulative effect. The San Joaquin Valley Air Basin is an air quality non-attainment area for ozone and particulate matter. Planned growth in Modesto under the amended UAGP will make a considerable contribution to the cumulative air quality impact within the Air Basin.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Activities within the City of Modesto are subject to regulation by the SJVAPCD. These regulations are designed to improve regional air quality over time so that the basin will reach air quality attainment. However, in the shorter term, these measures do not avoid the cumulative effect. The City of Modesto policies described as items AQ-1 through AQ-56 in Chapter V of the Master EIR will reduce the UAGP's contribution to the cumulative impact, but not to a less-than-significant level. No further feasible mitigation is available to reduce this impact to a less-than-significant level, and the impact remains significant and unavoidable.

Generation of Noise Impact: Traffic noise levels under future conditions have the potential to result in exceedances of the City's noise significance standards.

Findings:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Implementation of the UAGP policies will reduce construction-related, transportation related, and industrial/commercial noise impacts, with the exception of aircraft noise, to less-than-significant levels.

The City has adopted, as part of its Urban Area General Plan, various policies, described as items N-1 – N14 in Chapter V of the Master EIR, which moderate the effects of increased traffic and growth on noise. These include the Modesto City Noise Ordinance, which limits noise to daytime hours and prohibits the production of loud noises from stationary engines, and General Plan policies requiring mitigation of noise in new development in the existing City limits and Planned Urbanizing Area through setbacks, building standards, and noise buffers. These policies are implemented through the Initial Study analysis that is applied to all discretionary projects undertaken under the General Plan. With implementation of these policies, the impact is reduced to a less-than-significant level.

Generation of Noise Impact: Aircraft noise levels under future conditions after 2015 have the potential to result in exceedances of the City's noise significance standards.

Findings:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

UAGP Policies described as items N-11 and N-12 in Chapter V of the Master EIR require specific studies of airport and aircraft noise and development of mitigation measures for new construction to meet the noise compatibility standards of the UAGP. However, since the airport master plan has not yet been completed, future airport operations are not sufficiently known to allow full analysis of impacts and the development of specific mitigation measures, compatible with Federal Aviation Administration regulations. These policies will reduce the impact, but not to a less-than-significant level. No further feasible mitigation is available to reduce this impact to a less-than-significant level, and the impact remains significant and unavoidable.

Generation of Noise Impact: Traffic from development in the City of Modesto would contribute, with traffic from new development in the County and region, toward a cumulative increase in roadside noise levels on major roads and highways throughout the County. Within the City itself, the traffic analysis and corresponding traffic noise analysis take into account cumulative traffic volumes. The traffic study data includes cumulative traffic volumes, which were utilized as an input to the noise modeling analysis. Noise level projections based on the traffic levels anticipated in the UAGP indicate that noise will exceed the UAGP and noise ordinance standards. This is a significant cumulative effect. The development allowable under the UAGP will make a considerable contribution to that effect.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Although the policies of the UAGP will reduce noise impacts, cumulative future noise is projected to exceed UAGP standards, even with implementation of the UAGP policies described as items N-11 and N-12 in Chapter V of the Master EIR. No further feasible mitigation is available and the impact remains significant and unavoidable.

As described above in the discussion of air quality impacts, California Planning Law and the County's growth rate combine to limit the ability of the City to restrict growth and avoid increases in noise associated with additional growth (including traffic). Individual project contributions, although moderated by the City Noise Ordinance and General Plan policies described above, would be sufficient to result in a cumulative exceedance of City noise standards in some situations.

Effects on Agricultural Land Impact: The Urban Area General Plan will convert land from agricultural to urban use, particularly in the Planned Urbanizing Area. This impact is less-than-significant in the Baseline Developed and Redevelopment Areas since this conversion has already taken place. Development under the UAGP would convert substantial areas of farmland to urban uses within the Planned Urbanizing Area.

The UAGP would also place urban uses in proximity to existing agricultural activities, creating a potential conflict between urban and agricultural land uses, which could indirectly result in the conversion of additional areas of farmlands from agricultural uses to other uses.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

The UAGP policies described as items AL-15 through AL-21 in Chapter V of the Master EIR require the orderly conversion of agricultural land as available developable land is occupied within the city. The City has adopted policies intended to encourage compact growth, including the policies of Section III.C.3 of the Urban Area General Plan. While these policies will result in higher densities of development than would otherwise occur without those policies, thereby reducing the total amount of farmland that would otherwise be converted to meet growth projections, the existing built area of the City cannot absorb the projected increase in City population during the planning period. These policies will reduce the impact, but not to a less than significant level. No further feasible mitigation is available to reduce this impact to a less than significant level, and the impact remains significant and unavoidable.

As described above in the discussion of air quality impacts, California Planning Law and the County's growth rate combine to limit the ability of the City to restrict growth and avoid conversion of agricultural land associated with additional growth. Individual project contributions, although moderated by the General Plan policies described above, would be sufficient to result in conversion of agricultural lands.

Effect on Agricultural Land Impact: Modesto's growth will contribute to the cumulative impact of County-wide growth on agricultural lands.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

As described above in the discussion of air quality impacts, California Planning Law and the County's growth rate combine to limit the ability of the City to restrict growth and avoid the conversion of agricultural land associated with additional growth (including traffic). The City has adopted policies intended to encourage compact growth, including the policies of Section III.C.3 of the Urban Area General Plan. While these policies will result in higher densities of development than might occur without those policies, thereby reducing the total amount of farmland that must be converted to meet growth projections, the existing built area of the City cannot absorb the projected increase in City population during the planning period. These policies will reduce the impact, but not to a less than significant level. No further feasible mitigation is available to reduce this impact to a less than significant level, and the impact remains significant and unavoidable.

Increased Demand for Long-Term Water Supplies Impact: Future development under the Urban Area General Plan will contribute to the cumulative impact of future (2020) groundwater overdraft within the San Joaquin River basin during drought years.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

The population of Stanislaus County is projected to increase at a rate similar to Modesto. The California Department of Finance (DOF) estimates that the county population, approximately 521,500 persons in 2007 will reach approximately 857,900 persons by 2030 (Finance does not have a 2025 projection). This will result in substantial additional demands on the available water supplies. Cumulative impacts to water supplies could occur from increased groundwater extraction adjacent to the Modesto planning area boundaries that may result in overdrafting of the aquifer.

Starting in 2005, the City began retrofitting single-family, flat-rate customers to meters at a rate of 6% per year. Based on the City's metering plan, existing single-family flat-rate customers will be gradually converted to metered rates once all non-metered, flat-rate customers have been converted to metered use. Charging customers by their level of water consumption rather than at a flat rate will ultimately decrease the amount of per capita water use.

However, during drought years, despite available options, significant water shortages are forecast for the San Joaquin River basin by 2020. Modesto would make a cumulatively considerable contribution to the cumulative impact on water supply under drought conditions.

Implementation of the UAGP policies described as items WS-10 – WS-37 in Chapter V of the Master EIR, which include requirements for water conservation, obtaining new surface water supplies, and implementing a conjunctive groundwater/surface water management program, will reduce the impact, but not to a less than significant level. No further feasible mitigation is available to reduce this impact to a less than significant level, and the impact remains significant and unavoidable.

As described above in the discussion of air quality impacts, California Planning Law and the County's growth rate combine to limit the ability of the City to restrict growth and water consumption associated with additional growth. Individual project contributions, although moderated by the General Plan policies described above, would be sufficient to result in this impact.

Loss of Sensitive Wildlife and Plant Habitat Impact: Development under the Urban Area General Plan will result in the loss or degradation of sensitive wildlife and plant habitat, and may result in impacts on valley foothill riparian, riverine, fresh emergent wetland and vernal pool habitats in the Planned Urbanizing Area.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid these significant effects on the environment.

Supporting Evidence:

Except for lands within the designated riparian corridors (protected from development under the Urban Area General Plan's Comprehensive Planning District [CPD] policies, and specifically UAGP Policy VII-E.3[c]), lands within the Baseline Developed Area and the Redevelopment Area are of limited habitat value. Impact within these areas are less-than-significant.

Within the Planned Urbanizing Area, development will be subject to further environmental review through CEQA, as well as the federal Clean Water Act, the state and federal Endangered Species Acts, and the California Fish & Game Code, when CPDs are proposed for development. During the preparation of the specific plan for each CPD, appropriate measures will be required, including urban design and development standards, to avoid taking of listed species. Urban Area General Plan policies, including policies VII-E.3a, b, and c (and requiring implementation of Table 7-1 of the Master EIR) and measures in the Tuolumne River Regional Park (TRRP) Master Plan will protect sensitive habitats. With implementation of these policies, the impact is reduced to a less than significant level.

Loss of Sensitive Wildlife and Plant Habitat Impact: Development under the Urban Area General Plan will contribute to the cumulative loss of sensitive wildlife and plant habitat.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Within the Planned Urbanizing Area, development will be subject to further environmental review through CEQA, as well as the federal Clean Water Act, the state and federal Endangered Species Acts, and the California Fish & Game Code, when CPDs are proposed for development. During the preparation of the specific plan for each CPD, appropriate measures will be required, including urban design and development standards, to avoid taking of listed species. Urban Area General Plan policies, including policies VII-E.3a, b, and c (and requiring implementation of Table 7-1 of the Master EIR) and measures in the TRRP Master Plan will protect sensitive habitats. These policies will reduce the impact, but not to a less than significant level. No further feasible mitigation is available to reduce this impact to a less than significant level, and the impact remains significant and unavoidable.

As described above in the discussion of air quality impacts, California Planning Law and the County's growth rate combine to limit the ability of the City to restrict growth and thereby avoid loss of some habitat lands. The amount of growth that is forecast to arrive in the San Joaquin Valley, Stanislaus County, and Modesto by the year 2020 portends significant losses of habitat within the region.

Potential Disturbance of Archaeological or Historical Sites Impact: Substantial changes to existing historical resources and structures resulting from Zoning Ordinance requirements such as parking and landscaping, or demolition of such a structure could have a significant effect.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Known historical resources are primarily located within the Baseline Developed Area, which is already developed. Impacts of new construction, therefore, apply to development within 100 feet of a structure more than 50 years old because activities may affect that structure. If a site-specific project involves the modification or demolition of a qualifying structure more than 50 years old, the impacts may be significant. The City Zoning Ordinance requires that when substantial changes to a structure are proposed, the development will be required to comply with other Zoning Ordinance provisions such as parking or landscaping requirements. This could result in modifications to the structure which substantially reduce its historical significance. This would be a less-than-significant impact with the imposition of UAGP policies described as items AH-3

through AH-17 in Chapter V of the Master EIR. In particular, UAGP policies AH-4 through AH-8 require protection of existing archaeological and historical resources within the planning area through implementation of existing federal and state regulations, preparation inventories of significant resources, requiring specific evaluation of potential resources prior to construction, and adopting flexible zoning regulations for historic structures.

Demolition of a significant building cannot be mitigated to a less-than-significant level, and, even with implementation of the policies, the impact would be significant and unavoidable.

Potential Disturbance of Archaeological or Historical Sites Impact: Construction could result in impacts to currently unknown archaeological resources within and outside of riparian corridors.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Implementation of the UAGP policies described as items AH-3 – AH17 in Chapter V of the Master EIR, which require investigation and assessment of potential archaeological or historic resources at the time of application for development involving effects on structures of 50 years of age or more or earthmoving, will reduce this effect to less-than-significant levels. The General Plan policies require protection of archaeological and historical resources within the planning area.

Increased Demand for Storm Drainage Impact: New development will require improvements to existing stormwater drainage systems.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

The potential impacts on storm drainage that could occur from the project were qualitatively evaluated with respect to several factors, including the extent of the projected increase in urban surface area compared to undeveloped ground, the magnitude of projected changes to hydrologic and physical site characteristics of the study area compared to existing conditions, the regulatory criteria and guidelines, and professional judgment. Based on the above threshold of significance, the potential impacts of the UAGP on storm drainage are considered less than significant because the UAGP includes policies that require new development in all three sections of the planning area to install approved drainage facilities. These policies are identified as items SD-2 through SD-17 in Chapter V of the Master EIR.

New development is required under the policies of the UAGP to install storm drainage facilities that restrict the amount of post-development runoff from exceeding predevelopment conditions. In the Planned Urbanizing Area, this will include the installation of dual-use facilities that will provide recreational opportunities as well. Additionally, the UAGP includes policies for the City to maintain and upgrade storm drainage facilities as needed. Pursuant to the RWQCB's recent directive to the City to incorporate Low Impact Development (LID) design elements into new development policies, small, onsite infiltration will be utilized wherever possible, allowing large, regional basins and other storm drainage structures to be downsized. Implementation of the UAGP policies will reduce the impact to a less than significant level.

Increased Demand for Storm Drainage Impact: Development in Modesto and the County will contribute to a cumulative impact on the capacity of Modesto Irrigation District and Tuolumne Irrigation District canals to convey drainage waters.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

The population of Stanislaus County is projected to increase in a fashion similar to that of Modesto, resulting in additional urban development and associated increases in impervious areas and associated urban storm drainage. Cumulative hydrologic impacts of stormwater flows from Modesto urban areas and other areas of the county could occur due to the fixed capacity of MID and TID irrigation canals to convey drainage west to the San Joaquin River. If drainage channels in some areas prove insufficient to handle the increased drainage discharges, existing stormwater runoff from urban and agricultural areas during large storm events would have to be interrupted until water levels receded to a point that would allow the resumption of discharges to the channel. Ceasing discharges to drainage channels could cause inundation in and around the drainage conveyance pipeline systems, surface drainage channels, detention basins, and other urban areas.

This impact is considered significant. While implementation of the UAGP policies described above and described as items SD-2 – SD-17 in Chapter V of the Master EIR will reduce the impact, it will not be reduced to a less than significant level. No further feasible mitigation is available to reduce this impact to a less than significant level, and the impact remains significant and unavoidable.

As described above in the discussion of air quality impacts, California Planning Law and the County's growth rate combine to limit the ability of the City to restrict growth and thereby avoid increased volumes of storm drainage water.

Flooding and Water Quality Impact: Increased development could contribute to runoff, contributing to flooding problems in the urban area. Development of urban areas could increase discharges of erosion and wastes to surface waters through urban runoff, affecting surface water quality.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

UAGP policies described as items FWQ-5 – FWQ-10 in Chapter V of the Master EIR, including policies to restrict development in the floodplain and thus avoiding exposing persons and property to flood hazards, and requiring new development under the UAGP install stormwater drainage facilities that restrict the amount of post-development runoff from exceeding pre-development conditions will reduce this impact to a less than significant level.

City policies and capital improvement projects for stormwater drainage facilities would minimize discharges of urban pollutants to natural waterways. The City drainage program policies require new development to prepare drainage plans and implement urban runoff control measures; larger Specific Plan developments must have storm drainage systems designed to control pollutant runoff. The City's implementation policies for the municipal NPDES stormwater permit require new development to implement an appropriate selection of permanent pollution control measures. Implementation of the UAGP policies will reduce erosion and water quality impacts to a less than significant level.

Flooding and Water Quality Impact: Cumulative impacts could occur from the project's contributions to runoff and discharges of waste and erosion.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

UAGP policies described as items FWQ-5 – FWQ-10 in Chapter V of the Master EIR, including policies to restrict development in the floodplain and thus avoiding exposing persons and property to flood hazards, and requiring new development under the UAGP install stormwater drainage facilities that restrict the amount of post-development runoff from exceeding pre-development conditions will reduce the project's contribution to the cumulative impact to less than cumulatively considerable.

City policies and capital improvement projects for stormwater drainage facilities would minimize discharges of urban pollutants to natural waterways. The City drainage program policies require new development to prepare drainage plans and implement urban runoff control measures; larger Specific Plan developments must have storm drainage systems designed to control pollutant runoff. The City's implementation policies for the municipal NPDES stormwater permit require new development to implement an appropriate selection of permanent pollution control measures. Implementation of the UAGP policies will reduce the project's contribution to the cumulative impact to less than cumulatively considerable.

Increased Demand for Parks and Open Space Impact: Increased population under the Urban Area General Plan would increase demand for park and open space facilities, requiring new facilities to be constructed in the Planned Urbanizing Area and contributing to a significant cumulative impact.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

UAGP goals and policies described as items POS-2 – POS-46 in Chapter V of the Master EIR, including the goals and policies in UAGP sections V-G.2, V-G.3, and V-G.4, require the provision of park facilities as new development occurs in the Planned Urbanizing Area. The required minimum acreages can be met through the application of existing policies and regulations, including also Government Code Section 66474, which enables the City to require developers to pay Parks Capital Facilities Fees to fund the acquisition of appropriate parkland acreage. With implementation of the UAGP policies, the direct impact on the demand for parks and open space in the Planned Urbanizing Area will be reduced to less than significant and the UAGP's contribution to a cumulative impact will be reduced to less than cumulatively considerable.

Increased Demand for Police Services Impact: Additional demand for police services/facilities will be created by increased population under the Urban Area General Plan.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Complying with the UAGP policies described as items PS-2 – PS-15 in Chapter V of the Master EIR, particularly the policy that requires a long-range financing strategy for each Comprehensive Planning District, will allow the City to provide the resources necessary to extend service to the newly growing Planned

Urbanizing Area and maintain services in the Baseline Developed Area. Implementation of the UAGP policies will reduce impacts related to police services to a less-than-significant level through increased staffing and better building design and site planning.

Increased Demand for Fire Protection Services Impact: Annexations under the Urban Area General Plan could contribute to a cumulative impact on fire protection services.

Finding:

The City disagrees with the conclusion of the drafters of the Master EIR that the project could contribute to a cumulative impact on fire protection services. Specifically, the drafters concluded that cumulative impacts on fire services may occur should some or all of the existing fire protection districts become insolvent as a result of the loss of property tax revenues due to annexation of territory to the City. The City disagrees with this conclusion for the following reasons. First, the insolvency of one or more rural fire protection districts due to annexation of their territory to the City is not a significant environmental impact appropriate for environmental review under CEQA. Under CEQA, a significant environmental effect is defined as a substantial or potentially substantial adverse change in the environment. See Pub. Resources Code § 21100(b)(1); CEQA Guidelines § 15126, 15126.2. While the economic effects of City annexations on the finances of rural fire protection districts is undoubtedly a significant policy consideration for the City and LAFCO when evaluating possible annexations, it is not a “significant environmental effect” requiring evaluation under CEQA. Second, any indirect effects of currently-proposed and future annexations on the ability of rural fire protection districts to maintain levels of service to their territories are adequately addressed by current City and LAFCO policies applicable to City annexations. Among other things, these policies require:

- The City’s Fire Chief and the Fire Chiefs of adjoining rural fire protection districts to meet on an as-needed basis to discuss the financial impacts of annexations on the rural fire protection districts and how to prevent the erosion of fire protection and emergency services provided by those districts.
- Property tax allocation agreements between the City and all affected rural fire protection districts, which agreements are subject to the approval of the governing board of the fire protection district and of the City Council.
- A ‘plan for services’ as part of any annexation application demonstrating how existing levels of service will be maintained.
- Denial of any annexation application that would reduce existing levels of service in the annexation areas.

The City hereby finds that the appropriate implementation of these policies by the City and LAFCO will reduce any indirect impacts on fire protection services to less-than-significant levels, and ensure that the project’s contribution to any cumulative impact on fire protection services is not cumulatively considerable.

Generation of Hazardous Materials Impact: Impacts from the generation, transportation, storage, and disposal of hazardous materials within the Baseline Developed Area and the Planned Urbanizing Area could contribute to the cumulative impact of past activities where spills or contamination have occurred.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Urban Area General Plan policies as described as items HM-3 - HM-26 in Chapter V of the Master EIR, including policies V-M.2 and V-E.3, require avoidance of impacts in new development. In addition, federal and state laws regulating the transportation, storage, disposal, and clean-up of hazardous materials and wastes, including those programs administered by Stanislaus County, are described in Section V-16 of the Master EIR. Together, these reduce the UAGP's contribution to the cumulative impact to less than cumulatively considerable.

Geologic Hazards Impact: New construction could be subject to hazards from expansive soils.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Impacts related to the location of new development on expansive soils within the Modesto planning area would be assessed through the City's development review process and mitigated through UAGP Policy VI-B.2 [a], which requires conformance with the most recent UBC standards; and UAGP Policy VI-E.1 [a], which requires the preparation of site-specific geotechnical studies for new subdivisions. With these policies and their outcomes in place, impacts related to expansive soils would be reduced substantially, and any residual impact is considered less than significant.

Energy Impact: Continued development in the Planned Urbanizing Area would increase demand for energy.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Continued development within the Planned Urbanizing Area would have an impact on available energy supplies. Energy consumption likely would increase substantially by 2025 as a result of the increase in population of 1.7 times that of the current population. UAGP Policies described as items E-6 through E-42 in Chapter V of the Master EIR would promote energy-saving strategies and would help to reduce energy-related impacts resulting from continued development of the Modesto planning area. Title 24 CCR (California Building Standards – including energy efficiency standards) also would reduce energy use and infrastructure impacts by ensuring that continued development in the UAGP would not exceed local, state, and federal energy standards for new construction. Additionally, the City, in partnership with the Modesto Irrigation District, is in a better position to manage its own energy supply portfolio and ensure that supplies are adequate for its users than are similar cities that do not have access to hydroelectric power. However, these measures cannot be quantified in order to determine whether the impact has been reduced to a less than significant level on a direct or cumulative level. No additional feasible mitigation is available to reduce this impact to a less than significant level or to reduce the UAGP's contribution to the cumulative impact to less than considerable, and the impacts remain significant and unavoidable.

Visual Impact: Continued development in the Planned Urbanizing Area would alter the visual character of the area.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

The UAGP would allow urban development on currently flat or vacant land or land that is developed with agricultural uses. Such new development would change the visual character of the land. Implementation of UAGP Policy III-C.1 (h) would help to ensure the visual compatibility of new development: "Establish and maintain an orderly and compatible land use pattern. Evaluate land use compatibility, noise, traffic, and other environmental hazards when making land use decisions."

Overall, the UAGP incorporates policies described as items VR-2 – VR10 in Chapter V of the Master EIR place value on the preservation of visual resources and important vistas and viewsheds. The proposed planning principles encourage the visual enhancement of neighborhoods, planning districts, and parks. The UAGP has specific policies guiding the visual quality of riverside parks under the proposed River Greenway Program, which emphasizes the preservation of views from these parks, which would include the City's two river parks, Dry Creek Park and the TRRP. With implementation of these policies, the impact is reduced to a less than significant level.

Visual Impact: Continued development in the Planned Urbanizing Area would increase light and glare and contribute to a cumulative impact.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Adoption of the Growth Strategy Diagram for the Planned Urbanizing Area, as presented in Chapter II of the Master EIR, would lead to new development in areas that are currently vacant or used for agricultural purposes. This would lead to the introduction of light and glare in areas that are not illuminated currently. Additionally, the adoption of proposed UAGP actions and policies that would lead to an expanded street system and enhanced transit system would increase light and glare in the planning area. The City has adopted Guidelines for Small-Lot Single-Family Residential Developments and Design Guidelines for Commercial & Industrial Development that include standards for the design of outdoor lighting fixtures. These standards (UAGP Policy III-C.3[j]) limit the size of fixtures and require that fixtures focus their light to avoid spilling onto nearby properties. This will reduce the potential for light and glare impacts from new development in the Planned Urbanizing Area, however, the impacts will not be reduced to a less than significant level. No additional feasible mitigation is available to reduce the UAGP's contribution to the cumulative impact to less than considerable.

Climate Change Impact: Continued development in the Planned Urbanizing Area would increase energy consumption and vehicle miles traveled (VMT) in the City and region, increasing the volume of greenhouse gas (GHG) emissions generated in the City and region and contributing to a cumulative impact.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

Increased energy use and VMT from future development under the amended UAGP will contribute GHG emissions that add to the existing problem. As part of the traffic analysis prepared for the Master EIR, VMT in the planning area is estimated to reach 12,447,000 by 2025. This represents an 82 percent increase over the estimated 2005 VMT. Therefore, future development under the UAGP will make a cumulatively considerable contribution to global climate change. UAGP policies described as items CL-3 – CL-24 in Chapter V of the Master EIR will reduce the levels of GHG emissions that might otherwise result from the projected level of growth; however, these will not reduce the UAGP's contribution to the cumulative impact to less than considerable, and its contribution to this cumulative impact will remain significant and unavoidable.

Because the state has not adopted its full slate of regulations intended to reduce GHG emissions to 1990 levels, there is no guidepost by which to measure whether local general plans would interfere with the ability to meet that objective. However, the level of GHG emissions reduction needed (73 million metric tons or 15 percent below the 2007 emissions level) in the face of an anticipated 17 percent increase in California's population by 2020 establishes a formidable target. The extent of reductions required will necessitate utilizing local land use regulations to minimize new GHG emissions by improving energy conservation and reducing VMT through sensitive urban design and planning.

Growth-Inducing Impact: The Urban Area General Plan will have a growth-inducing impact by removing regulatory obstacles to growth.

Finding:

Changes or alterations have been incorporated into the project which mitigate or avoid the significant effects on the environment.

Supporting Evidence:

State Planning Law requires each city and county to adopt a general plan for its future development. This general plan must consider land use, transportation, housing, conservation, open-space, noise, and safety issues. Under the Housing Element, State Law requires the City of Modesto, to plan for its fair share of future housing needs (Government Code Section 65580 et seq.). Fair share housing need allocations are assigned on the basis of population projections for the region. The California Department of Finance projects that the population of Stanislaus County will increase by approximately 56.6 percent by the year 2020 (*Interim County Population Projections* -- June 2001).

State law prohibits the City from adopting a general plan that does not provide for this future growth.

As described in Chapter VI of the Master EIR, the City has adopted a number of policies intended to control the rate of its growth, and to encourage higher-than-usual density of development so that the urban area will develop compactly. These policies will channel the direction and form of growth, but will not prevent it. The impact is significant and unavoidable.

B. FINDINGS SUPPORTING REJECTION OF ALTERNATIVES

The Final MEIR discussed and evaluated a range of alternatives as required by CEQA Guidelines Section 15126.6. In order to reject an alternative, the City must find:

Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the alternatives identified in the Master EIR.

Following are the findings supporting rejection of each of the alternatives.

Alternative 1. No Project Alternative: The No-Project Alternative is the continuation of the 1995 UAGP, as amended, into the future. The No-Project Alternative would not include any of the new policies being added to the UAGP with the current update.

Finding for rejection:

Specific legal and fiscal considerations make infeasible the alternative identified in the Master EIR.

Supporting Evidence:

The California Planning and Zoning Law (Government Code Section 65300, et seq.) requires each City to adopt a long-term general plan for its physical development. The general plan is expected to be comprehensive, internally consistent, and have a long-term perspective (Chapter 1, *State General Plan Guidelines*. Office of Planning and Research. 1998). Furthermore, the provisions of the circulation element must be "correlated" with the land use element (Government Code Section 65302(b)). In addition, in a charter city such as Modesto, subdivisions of land, specific plans, development agreements, capital improvement plans, and comprehensive plans must be consistent with the general plan (Government Code Sections 66474, 65454, 65867.5, 65103, and 65300.5, respectively). Generally, a city is expected to update its general plan at least every ten years. The current UAGP Amendment responds to changes in federal, state, and local policies that have occurred since the General Plan was adopted by the Modesto City Council in 1995 and amended in 2003. It is not a comprehensive update to the UAGP. No major land use changes are proposed as part of the amendment. The horizon of the UAGP remains 2025. The amendment to the UAGP would extend the useful life of the UAGP until a comprehensive update is completed.

Since the 1995 adoption of the Urban Area General Plan, the City has revised its job generation estimates, refined its traffic model, and identified numerous cultural resources, among other things. These will change the way in which the City considers land use projects. Accordingly, these changes must be represented in revisions to the General Plan roadway network (in order to maintain correlation with the land use element), cultural resources section, and other policies in the Urban Area General Plan so that they may be reflected in the review of subdivisions, specific plans, and other City actions that require consistency with the General Plan. In order to ensure that the general plan consistently reflects proposed changes to the City's roadway network, cultural resources preservation policies, and other policies described in Chapter III (Project Description) of the Master EIR, the City is required to incorporate these proposed changes into the General Plan itself.

The California Environmental Quality Act provides that a Master EIR must be examined within 5 years of its original certification to ensure that it continues to reflect the environment and current information about environmental effects

(Public Resources Code Section 21157.6). Since the certification of the Master EIR for the Urban Area General Plan in 1995, the City has consistently cross-referenced new information from later environmental analyses, such as the EIR prepared for the Kaiser Medical Center and the Master EIR for the Wastewater Master Plan, to the Urban Area General Plan Master EIR. Furthermore, the "No Project" alternative would not allow the City to address climate change and State legislative actions by adopting climate change policies into the Urban Area General Plan and implementing them. In order to ensure that its Master EIR meets the spirit, as well as the letter, of the law Modesto is updating its General Plan and certifying this update of its Master EIR.

Alternative 2: No Changes to Street Designations

The proposed UAGP update includes revisions to the currently planned configurations of six streets, Dale Road, Bangs Avenue, Claratina Expressway, Carpenter Road, Claus Road, and Sylvan Avenue. Under Alternative 2, the City would not revise the designations of these streets, and they eventually would be constructed as currently planned. This would reduce noise impacts along those streets in comparison to the proposed UAGP.

Finding:

Specific legal and technical considerations make infeasible the alternative identified in the Master EIR.

Supporting Evidence:

This alternative would reduce proposed transportation improvements proposed in the draft UAGP. Under this alternative greater transportation impacts along those roads would occur than under the proposed project (the draft UAGP). Additionally, the transportation improvements that would not occur would reduce opportunities for non-auto transportation, an essential part of addressing key impacts on traffic, air quality, and climate change, and the objective of many of the policies of the UAGP.

Government Code Section 65300.5 states that "the general plan and elements and parts thereof [must] comprise an integrated, internally consistent and compatible statement of policies for the adopting agency." Alternative 2 is rejected because it would not provide for bicycle transportation in that it would not alter the designation of Carpenter Road to a principal arterial with bike lanes and would not allow for improved bicycle facilities on some of the other affected roadways. This would make the UAGP internally inconsistent in not complying with policies such as UAGP Policy V-B.6, concerning transportation demand management and encouraging non-auto forms of transportation.

STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to Public Resources Code Section 21081 and Section 15093 of the State CEQA Guidelines (14 California Code of Regulations 15000, et seq.), the City of Modesto cannot approve a project for which an Environmental Impact Report (EIR) has been certified which identifies significant unavoidable effects on the environment, unless it adopts a statement of overriding considerations that finds that specific overriding economic, legal, social, technological or other benefits of the project outweigh its significant effects on the environment.

A. SIGNIFICANT UNAVOIDABLE IMPACTS

The Master EIR identified the following adverse effects of the project that cannot be mitigated below a level of significance:

- Traffic and Circulation Needs (direct and cumulative impacts)
- Degradation of Air Quality (cumulative impacts)
- Generation of Noise (direct and cumulative impacts)
- Loss of Productive Agricultural Land (direct and cumulative impact)
- Increased Demand for Long Term Water Supplies (cumulative impact)
- Loss of Sensitive Wildlife and Plant Habitat (cumulative impact)
- Potential Demolition of Significant Historical Structures (direct impact)
- Increased Demand for Storm Drainage (cumulative impact)
- Increased Demand for Energy (direct and cumulative impact)
- Increased Light and Glare (cumulative impact)
- Climate Change (cumulative impact)
- Growth-Inducement

B. STATEMENT OF OVERRIDING CONSIDERATIONS

The City Council has determined that the update Modesto Urban Area General Plan should be approved and that any remaining unmitigated environmental impacts attributable to the Modesto Urban Area General Plan are outweighed by the following specific benefits.

Overriding Considerations Relating To All Significant And Unavoidable Impacts (direct and cumulative impacts)

California Planning and Zoning Law requires the City to adopt a general plan for its long-range physical development (Government Code Section 65300 et seq.). Substantial population increases are projected to occur in Stanislaus County and the City of Modesto during the planning period. The California Department of Finance projects that the population of Stanislaus County will increase by approximately 33 percent by 2020, increasing to 699,144 from its current population of 525,903 and 63 percent by 2030 (projected 2030 population - 857,893) (*State of California, Department of Finance, Population Projections for California and Its Counties 2000-2050, Sacramento, California, July 2007; and State of California, Department of Finance, E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2007 and 2008. Sacramento, California, May 2008*). The level of development proposed under the proposed Urban Area General offers the planning benefit of directing how the expected population increase will be efficiently located within the City through compact

development policies contained in the plan, and describing City policies for the provision of future infrastructure and other needs. State laws and the countywide growth rate combine to limit the ability of the City to restrict growth. The contributions of individual projects to cumulative impacts, although moderated by policies contained in the Urban Area General Plan, would still result in environmental impacts.

The development associated with the Urban Area General Plan would result in approximately 130,000 new employment opportunities in total within the planning area in the planning horizon year. The increased number of local jobs has the benefit of reducing chronic local unemployment levels that are currently at 10.9 percent (*California Employment Development Department Labor Market Information Division July 18, 2008 REPORT 400 M - Monthly Labor Force Data for California Counties and Metropolitan Statistical Areas June 2008 – Preliminary*), which is more than one and a half times the current statewide average of 7.0 percent. The increase in housing will economically, socially and legally benefit the community by helping it meet its future regional fair share housing allocations, as required under Government Code Section 65580 et seq.

The City of Modesto's Redevelopment Plan, adopted in 1991, contains numerous goals and policy statements, which would not be achieved without the promotion of significant employment opportunities. The proposed project benefits the City economically by enabling the creation of nearly 45,000 new employment opportunities and new housing opportunities for 5,700 residents in the central city area.

Primary among these redevelopment goals are the following:

- The replanning, redesign and development of undeveloped areas, which are stagnant or improperly utilized.
- The strengthening of retail and other commercial functions in the Project Area.
- The strengthening of the economic base of the Project Area and the community by the installation of needed site improvements to stimulate new commercial expansion, employment and economic growth.
- The expansion of the supply of housing for low- and moderate-income persons.

Additional Overriding Considerations Relating to Traffic and Circulation Needs, Noise, and Air Quality (direct and cumulative impacts)

The proposed Urban Area General Plan traffic and circulation element and the amendments being proposed are consistent with the Stanislaus County Regional Transportation Plan. Thus, although the project will exceed Level of Service standards along numerous road segments within the Planning Area and contribute to regional cumulative traffic impacts, the it will also contribute to improvements in the movement of goods and people throughout the region and ensure internal consistency within the General Plan and correlation of the Circulation and Land Use elements, as required under Government Code Section 65300.5.

Overriding Considerations Relating to Loss of Productive Agricultural Land (direct and cumulative impact)

Agriculture is a leading industry in Stanislaus County and San Joaquin County; the value of Stanislaus County's agricultural commodities totaled approximately \$1.98 billion in 2005, and San Joaquin County's totaled \$1.74 billion (California Department of Food and Agriculture 2006). The agriculture, forestry, and fishing industries rank second only to the public sector in number of jobs in the San Joaquin Valley, with 181,300 jobs in 2007. In 2005, Stanislaus and San Joaquin Counties ranked as the sixth and seventh most agriculturally productive counties in California, respectively, based on the value of agricultural products sold (California Department of Food and Agriculture 2006). Nonetheless, agriculture is a seasonal occupation and is one reason for Stanislaus County's relatively high unemployment rate. High unemployment rates are common among the agricultural-dependent counties of the San Joaquin Valley, as well as Imperial County (*Civilian Labor Force, Employment and Unemployment*. Employment Development Department. January 15, 2003).

As explained above, the project has the social and economic benefits of encouraging significant new employment opportunities outside of agriculture, as the business parks identified in the Urban Area General Plan are developed. In the planning horizon year, the plan would allow up to 130,000 new employment opportunities in total within the planning area. This will create a more diversified job market. It will also enable the City to meet the economic development goals of its general plan calling for diversification of its economic base and provision of economic development opportunities (Policy II-B.1[a]).

Additional Overriding Considerations Relating to Increased Demand for Long Term Water Supplies (cumulative impact)

The General Plan and Urban Water Management Plan (UWMP) identify a number of actions that the City is currently conducting or planning to implement to reduce demands on the water supply. These measures include Urban Area General Plan policies described as items WS-10 through WS-37 in Chapter V of the Master EIR, which include requirements for water conservation, obtaining new surface water supplies, and implementing a conjunctive groundwater/surface water management program. The project facilitates the City's efforts to implement these actions to conserve and more efficiently utilize the City's existing and future water supplies.

Additional Overriding Considerations Relating to Loss of Sensitive Wildlife and Plant Habitat (cumulative impact)

The policies of the Urban Area General Plan relating to the CPDs and protection of special status species within the riparian corridors and the Planned Urbanizing Areas offer the benefit of enabling the City to undertake comprehensive planning of large areas. This will provide opportunities for programmatic, large-scale approaches to the protection of special status species and their habitats.

Additional Overriding Considerations Relating to Potential Demolition of Significant Historical Structures (direct impact)

Urban Area General Plan policies described as items AH-4 through AH-8 in Chapter V of the Master EIR require protection of archaeological and historical resources within the planning area through implementation of existing federal and state regulations, preparation inventories of significant resources, requiring specific evaluation of potential resources prior to construction, and adopting flexible zoning regulations for historic

structures. The identified impact is associated only with those future projects that may affect existing historic structures. Most historic structures in the City are located in the existing urban core. Effects on existing historic structures would likely occur as a part of the redevelopment and intensification of the existing urban core, consistent with Urban Area General Plan policies directed toward creating more compact development, reducing auto travel, and encouraging non-auto travel including pedestrian and transit modes.

Additional Overriding Considerations Relating to Increased Demand for Storm Drainage (cumulative impact)

Substantial population increases are projected to occur in Stanislaus County and the City of Modesto during the planning period. The level of development proposed under the proposed Urban Area General Plan offers the planning benefit of directing how this increased population will be efficiently located within the City through compact development policies contained in the plan, and describing City policies for the provision of future infrastructure and other needs.

The Urban Area General Plan CPD policies give the City the opportunity to undertake comprehensive planning of large areas identified for future development. This provides the benefit of being able to develop large-scale drainage facilities as part of these plans, in cooperation with other affected agencies. This has the planning benefit of creating programmatic solutions to drainage within those CPDs. The City is currently completing a *Stormwater Master Plan* that will describe the schematic layout of future storm drainage systems in all of the Planned Urbanizing Area. In addition, the City is participating with MID and other local agencies on the preparation of an *Integrated Water Resources Management Plan* that will address water resources planning and management in the region for surface water, groundwater, wastewater, and storm drainage.

Additional Overriding Considerations Relating to Increased Demand for Energy and Air Quality (direct and cumulative impacts)

Urban Area General Plan Policies described as items E-6 through E-42 in Chapter V of the Master EIR would promote energy-saving strategies and would help to reduce energy-related impacts resulting from continued development of the Modesto planning area. Title 24 CCR (California Building Standards – including energy efficiency standards) also would reduce energy use and infrastructure impacts by ensuring that continued development in the Urban Area General Plan would not exceed local, state, and federal energy standards for new construction. Energy use would, however necessarily increase as housing, jobs, and population increase in the City and the region.

Additional Overriding Considerations Relating to Increased Light and Glare (cumulative impact)

The City has adopted *Guidelines for Small-Lot Single-Family Residential Developments* and *Design Guidelines for Commercial & Industrial Development* that include standards for the design of outdoor lighting fixtures. These standards (UAGP Policy III-C.3[j]) limit the size of fixtures and require that fixtures focus their light to avoid spilling onto nearby properties. This will reduce the potential for light and glare impacts from new development in the Planned Urbanizing Area. However, as land uses change from rural and agricultural to urban, light and glare would necessarily increase.

Additional Overriding Considerations Relating to Climate Change and Air Quality
(cumulative impacts)

Development under the proposed Urban Area General Plan will, as it increases vehicle travel and energy use, contribute to the cumulative impact generation of greenhouse gases has been determined to have on climate change. The Urban Area General Plan includes policies and land use design elements designed to reduce the City's use of energy and to reduce auto trips. Given the existing setting and available technology, new development, including construction of housing and public services, and economic activity, will necessarily increase trips and energy use.

EXHIBIT "C"

**FINAL MASTER ENVIRONMENTAL IMPACT REPORT FOR THE URBAN
AREA GENERAL PLAN UPDATE**

<http://www.modestogov.com/ced/projects/gp-meir.aspx>

Original Exhibit "C" kept on file and available from the Modesto
City Clerk's office upon request.

City of Modesto

Finding of Conformance to General Plan Master EIR:

Initial Study Environmental Checklist C&ED No. 2013-015

For the proposed:

Claratina Avenue Automotive Dealerships

**Prepared by:
City of Modesto
Community & Economic Development Department
Planning Division**

May 29, 2013

(Intentional Blank Page)

City of Modesto

Master EIR Initial Study Environmental Checklist

I. PURPOSE

CEQA allows for the limited environmental review of subsequent projects under the City's Master Environmental Impact Report ("Master EIR" or "MEIR"). This Initial Study Environmental Checklist ("Initial Study") is used in determining whether Infiniti Automotive Dealership is "within the scope" of the project analyzed in the Modesto Urban Area General Plan Master EIR (SCH# 2007072023) (Public Resources Code section 21157.1). When the Initial Study supports this conclusion, the City will issue a finding of conformance.

A subsequent project is "within the scope" of the Master EIR when:

1. it will have no additional significant effects on the environment that were not addressed as significant effects in the Master EIR; and
2. no new or additional mitigation measures or alternatives are required.

"Additional significant effects" means a project-specific effect that was not addressed as a significant effect in the Master EIR. [Public Resources Code Section 21158(d)]

The determination must be based on substantial evidence in the record. "Substantial evidence" means facts, reasonable assumptions predicated upon facts, or expert opinion based on facts. It does not include speculation or unsubstantiated opinion. (CEQA Guidelines Section 15384)

II. PROJECT DESCRIPTION

- A. Title: Infiniti Automotive Dealership
- B. Address or Location: Southeast corner of McHenry Avenue and Claratina Avenue (APN(s) 082-010-008 and 082-010-003)
- C. Applicant: JWG McHenry, LLC; c/o John McSherry 4460 McHenry Avenue, Modesto, CA 95356
- D. City Contact Person: David Wage, Associate Planner
Project Manager: David Wage
Department: Community and Economic Development
Phone Number: (209) 577-5267
E-mail address: dwage@modestogov.com
- E. Current General Plan Designation(s): Regional Commercial
- F. Current Zoning Classification(s): Specific Plan
- G. Surrounding Land Uses:
 - North: Commercial (Automotive Dealership)
 - South: Residential (Mobile Home Park)
 - East: Residential (Single Family)
 - West: Commercial (Donation Center)

H. Project Description, including the project type listed in Section II.C (Anticipated Future Projects) of the Master EIR:

The project includes construction of two single-story 14,500 square-foot auto dealerships and a 21,000 square-foot retail building at the southeast corner of McHenry Avenue and Claratina Avenue. A new driveway on McHenry Avenue (SR 108) is proposed. A slip ramp along the Claratina Avenue project frontage would allow eastbound cars on Claratina Avenue to enter the site; however cars would not be allowed to directly exit onto Claratina Avenue. The existing improvements at the southeast corner would be reconstructed to accommodate a right turn lane, pedestrian traffic island, relocation of the traffic signal and install curb, gutter and sidewalk.

Development of the site would also include onsite paving to accommodate driveways, drive aisles, customer parking, and sales inventory. Onsite landscaping will be provided in accordance with City Standards. Stormwater will drain to an existing storm drainage basin to the southeast of the project site in the Coffee-Claratina Specific Plan area.

I. Other Public Agencies Whose Approval is Required:

- Caltrans
- San Francisco Public Utilities Commission

III. FINDINGS/DETERMINATION (SELECT ONE ON THE BASIS OF THE ANALYSIS IN SECTION IV)

1. X **Within the Scope** - The project is within the scope of the Master EIR and no new environmental document or Public Resources Code Section 21081 findings are required. All of the following statements are found to be true:

- A. The subsequent project will have no additional significant effect on the environment, as defined in subdivision (d) of Section 21158 of the Public Resources Code, that was not identified in the Master EIR.
- B. No new or additional mitigation measures or alternatives are required.
- C. The subsequent project is within the scope of the project covered by the Master EIR.
- D. All applicable policies, regulations, and mitigation measures identified in the Master EIR have been applied to the subsequent project or otherwise made conditions of approval of the subsequent project.

2. ____ **Mitigated Negative Declaration Required** - On the basis of the above determinations, the project is not within the scope of the Master EIR. A mitigated negative declaration will be prepared for the project. The following statements are all found to be true:

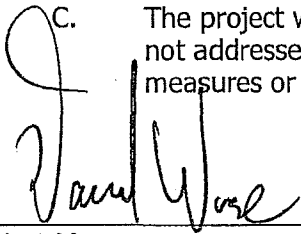
- A. The subsequent project is within the scope of the project covered by the Master EIR.
- B. All applicable policies, regulations, and mitigation measures identified in the Master EIR have been applied to the subsequent project or otherwise made conditions of approval of the subsequent project.

- C. The project will have one or more potential new significant effects on the environment that were not addressed as significant effects in the Master EIR. New or additional mitigation measures are being required of the project that will reduce the effects to a less-than-significant level.

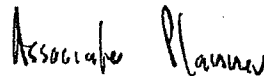
3. **Focused EIR Required-** On the basis of the above determinations, the project is not within the scope of the Master EIR. A Focused EIR will be prepared for the project. All of the following statements are found to be true:

- A. The subsequent project is within the scope of the project covered by the Master EIR.
- B. All applicable policies, regulations, and mitigation measures identified in the Master EIR have been applied to the subsequent project or otherwise made conditions of approval of the subsequent project.

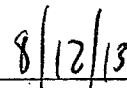
- C. The project will have one or more new significant effects on the environment that were not addressed as significant effects in the Master EIR. New or additional mitigation measures or alternatives are required as a result.



Project Manager



Title



Date

4. Within the Scope Analysis of this Document:

The Master EIR allows projects to be found within the scope of the MEIR if certain criteria are met. If the following statements are found to be true for all 21 impact categories included in this Initial Study, then the proposed project is addressed by the MEIR analysis and is within the scope of the MEIR. Any "No" response must be discussed.

	YES	NO
(1) The lead agency for subsequent projects shall be the City of Modesto or a responsible agency identified in the Master EIR.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(2) City policies which reduce, avoid, or mitigate environmental effects will continue to be in effect and, therefore, would be applied to subsequent projects where appropriate. The policies are described in the list of policies in place and mitigation measures attached to the Initial Study template. Project impacts would be mitigated to a less-than-significant level using MEIR mitigations only.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(3) Federal, State, regional, and Stanislaus County regulations do not change in a manner that is less restrictive on development than current law (i.e., would not offer the same level of protection assumed under the Master EIR).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(4) No specific information concerning the known or potential presence of significant resources is identified in future reports, or through formal or informal input received from responsible or trustee agencies or other qualified sources.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(5) The development will occur within the boundaries of the City's planning area as established in this Urban Area General Plan.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(6) Development within the project will comply with all appropriate mitigation measures contained and enumerated in the 2008 General Plan Master EIR.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5. Currency of the Master EIR Document

The MEIR should be reviewed on a regular basis to determine its currency, and whether additional analysis/mitigation should be incorporated into the MEIR via a Supplemental or Subsequent EIR (CEQA Section 21157.6). Staff has reviewed Sections 1 through 21 of this document in light of the criteria listed below to determine whether the MEIR is current. The analysis contained within the Master EIR is current as long as the following circumstances have not changed. Any "no" response must be explained.

	YES	NO
(1) Certification of the General Plan Master EIR occurred less than five years prior to the filing of the application for this subsequent project.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(2) This project is described in the Master EIR and its approval will not affect the adequacy of the Master EIR for any subsequent project because the City can make the following findings:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(a) No substantial changes have occurred with respect to the circumstances under which the Master EIR was certified.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) No new information, which was not known and could not have been known at the time the Master EIR was certified as complete, has become available.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Policies remain in effect which require site-specific mitigation, and avoidance or other mitigation of impacts as a prerequisite to future development.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IV. ENVIRONMENTAL ANALYSIS

This Initial Study, in accordance with Section 21157.1(b) of the Public Resources Code, discloses whether the proposed project may cause any project-specific significant effect on the environment that was not examined in the Final Master EIR (MEIR) for the General Plan and whether new or additional mitigation measures or alternatives may be required as a result. The Initial Study thereby documents whether or not the project is "within the scope" of the Master EIR.

Pursuant to Public Resources Code Section 21157.1, no new environmental document or findings are necessary for projects that are determined to be within the scope of the MEIR. Adoption of the findings specified in Section III.1, above after completion of the Initial Study fulfills the City's obligation in that situation.

All environmental effects cited reflect 2025 conditions resulting from the Urban Area General Plan, as identified in the Master EIR.

The environmental impact analysis in the Master EIR for the Urban Area General Plan is organized in twenty-one subject areas. The following analysis is based on the impact analyses contained in Chapter V of the Master EIR. For ease of reference, the sections are numbered in the same order as the analyses in Chapter V.

1. TRAFFIC AND CIRCULATION

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable traffic and circulation impacts expected after application of mitigations/policies:

Direct Impacts

Effect: Increased automobile traffic will result in roadway segments (see MEIR on Table 1-7, pages V-1-32 to V-1-34) operating at LOS D, Modesto's significance threshold for automobile traffic, or lower (LOS E or F).

Effect: The substantial increase in traffic relative to the existing load and capacity of the street system will cause, either individually or cumulatively, the violation of automobile service standards established by StanCOG's Congestion Management Plan for designated roads and highways.

Effect: A substantial increase in automobile vehicle miles traveled and automobile vehicle hours of travel and a decrease in average automobile vehicle speed (see MEIR Table 1-6, page V-1-31).

Cumulative Impacts

Effect: Potential for growth inducement or acceleration of development resulting from highway and local road projects.

Effect: Substantial increase in traffic in relation to the existing traffic load and capacity of the street system, including a violation, either individually or cumulatively, of an automobile LOS standard established by the Congestion Management Plan for designated roads and highways.

Effect: Increased demand for capacity-enhancing alterations to existing roads or automobile traffic reduction.

Other impact categories affected by Traffic and Circulation are addressed throughout this Initial Study (see also Section 2, Degradation of Air Quality; Section 3, Generation of Noise; Section 7 Loss of Sensitive Wildlife and Plant Habitat; Section 8, Disturbance of Archaeological/Historic Sites; Section 14 Increased Demand for Fire Services; Section 18, Energy; Section 19, Visual Resources; Section 20, Land Use and Planning, and Section 21, Climate Change).

b. Master EIR and/or New Mitigation Measures Applied to the Project

Traffic and Circulation mitigation measures pertinent to this project are found on MEIR pages V-1-9 through V-1-28. All mitigation measures appropriate to the project, including any new measures, will be incorporated into or made conditions of approval of this project and are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

The project does not require mitigation measures from the MEIR. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-1.B of the Master EIR provides analysis of Traffic and Circulation impacts of development of the General Plan, the following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: A subsequent development project will have a new significant effect on the environment if it would exceed the following criteria:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. TRAFFIC AND CIRCULATION				
1) The proposed project exceeds traffic generation assumptions in the Master EIR for the site by 100 trips or more and City Engineering and Transportation staff has determined that the project would have additional potentially significant project-specific effects that are not avoided or reduced by the Master EIR's mitigation measures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would cause additional roadway segments in the General Plan area to exceed LOS D and/or cause additional violations of standards in the Congestion Management Plan, and/or cause an increase in automobile vehicle miles or vehicle hours of travel or a decrease in automobile travel speed, as compared to the impacts disclosed in the Master EIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project would cause emergency response times to exceed acceptable standards established by the Fire Department, as compared to impacts disclosed in the Master EIR (see Section 14, Increased Demand for Fire Services).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) The proposed project would result in less parking than required by the Municipal Code or as determined by staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6) The proposed project would conflict with adopted policies, plans, or programs that support alternative transportation, including, but not limited to the Regional Transportation Plan, the Sustainable Communities Strategy, the Bicycle Action Plan, and so on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7) The proposed project would result in an increase in automobile vehicle miles traveled on a per capita basis, in excess of that considered in the Urban Area General Plan MEIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1 & 3) **No Impact:** The proposed project is consistent with the General Designation and the traffic volumes assumed in the MEIR. The project will not result in an increase 100 additional trips than what was assumed in the MEIR (Regional Commercial) or degradation below LOS D and therefore no new mitigation measures are necessary.
- (2) **No Impact:** The project would not generate enough traffic to individually or cumulatively exceed as level of service standard established by the County congestion management agency for roads or highways.
- (4) **No Impact:** Police and Fire Staff have reviewed this proposal and have indicated that there is no emergency access problem.
- (5) **No Impact:** The project will provide 69 parking spaces which exceeds the Municipal Code Standard of one space for every three hundred square-feet. City staff has reviewed the project and determined the project has provided sufficient parking for the proposed automotive dealership.
- (6) **No Impact:** The proposed project has been reviewed by Traffic, Planning and Transit staff and would not conflict with any adopted plans for alternative transportation. A bus turnout will be accommodated along the Claratina Avenue frontage.
- (7) **No Impact:** The proposed project is would not result in an increase in energy consumption in excess of what was considered in the Urban Area General Plan.

2. DEGRADATION OF AIR QUALITY

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable air quality impacts expected after application of mitigations/policies:

Direct Impacts

Effect: Expected automobile traffic will result in increased operational emissions of reactive organic gases (ROG) and oxides of nitrogen (NO_x) (see MEIR Table 2-8, page V-2-27).

Effect: Expected automobile traffic will result in increased emissions of particulate matter 10 microns or less (PM₁₀) and 2.5 microns or less in diameter (PM_{2.5}) (see MEIR Table 2-8, page V-2-27).

Effect: Expected automobile traffic will result in increased carbon monoxide (CO) levels in the project area (see MEIR Table 2-7, page V-2-26, and Table 2-8, page V-2-27).

Cumulative Impacts

The Master EIR indicates the same impacts identified as direct impacts above will contribute to regional impacts on air quality for the criteria pollutants ROG, NO_x, PM₁₀, and PM_{2.5}.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Air quality mitigation measure(s) pertinent to the proposed project are found on pages V-2-13 through V-2-24 of the Master EIR. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project and are listed in Section V, Mitigation Measures Applied to Project:

MEIR AQ-20

To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should determine air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD. (General Plan Policy VII-H.2 [n])

MEIR AQ-26

Review of new development shall be coordinated with SJVAPCD's staff to ensure all projects subject to the SJVAPCD rule 9510 (Indirect Source Review) comply fully with the rule. This rule fulfills the SJVAPCD's emission reduction commitments in the PM10 and Ozone Attainment Plans through design features and onsite approval for a development project, or any portion thereof, which upon full buildout will include any of the following:

- 50 residential units
- 2,000 square feet of commercial space
- 25,000 square feet of light industrial space
- 100,000 square feet of heavy industrial space
- 20,000 square feet of medical office space
- 39,000 square feet of general office space
- 9,000 square feet of educational space
- 10,000 square feet of government space
- 20,000 square feet of recreational space
- 9,000 square feet of space not identified above. (General Plan Policy VII-H.2[u])

MEIR AQ-40

The City of Modesto shall require all access roads, driveways, and parking areas serving new commercial and industrial development are to be constructed with materials that minimize particulate emissions in accordance with the requirements of SJVAPCD Regulation VIII and are appropriate to the scale and intensity of the use.

SJVUAPCD Regulation VIII Control Measures for Construction Emissions of PM-10. The following controls are required to be implemented at all construction sites.

MEIR AQ-42

All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.

MEIR AQ-43

All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

MEIR AQ-44

All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

MEIR AQ-46

When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

MEIR AQ-47

All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)

MEIR AQ-48

Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

MEIR AQ-49

Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

MEIR AQ-50

Any site with 150 or more vehicle trips per day shall prevent carryout and track out.

The following measures should be implemented at construction sites when required to mitigate significant PM10 impacts(note, these measures are to be implemented in addition to Regulation VIII requirements):

MEIR AQ-51

Limit traffic speeds on unpaved roads to 15 mph; and

MEIR AQ-52

Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent (1%).

MEIR AQ-53

Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.

MEIR AQ-54

Install wind breaks at windward side(s) of construction areas.

MEIR AQ-55

Suspend excavation and grading activity when winds exceed 20 mph. Regardless of windspeed, an owner/operator must comply with Regulation VIII's 20 percent (20%) opacity limitation.

MEIR AQ-56

Limit the area subject to excavation, grading and other construction activity at any one time.

c. Project-Specific Effects

Section V-2.B of the Master EIR is the analysis of air quality impacts resulting from development of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project -specific effect not analyzed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
2. DEGRADATION OF AIR QUALITY				
1) The proposed project exceeds the project-level emissions thresholds established for CO, ROG, NO _x , PM ₁₀ , and PM _{2.5} by the San Joaquin Valley Air Pollution Control District (SJVUAPCD) and is not consistent with the development assumptions for the project site, as established in the Urban Area General Plan and Master EIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) The proposed project does not incorporate the best management practices established by the SJVAPCD for CO, ROG, NO _x , PM ₁₀ , and PM _{2.5} .	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project does not comply with the air quality policies in the Modesto Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project would expose sensitive receptors to pollutant concentrations in excess of those expected to occur as a result of implementation of the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) The proposed project would create objectionable odors affecting a substantial number of people.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- (1) **Less Than Significant Impact:** A project such as this was anticipated in the General Plan Master EIR. The project site is within the City's boundary at the time the Master EIR was updated in 2008. The site is designated for Regional Commercial in the General Plan. The traffic and air quality analysis in the MEIR assumed this site would be developed with Regional Commercial Uses. The project is consistent with the development assumptions in the MEIR.

In accordance with MEIR Mitigation Measure MEIR AQ-26, the project was routed to the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) for comments. The District indicated the project specific emission of criteria pollutants (CO, ROG, NO_x) are not expected

to exceed District thresholds. Therefore the project would have not have a significant adverse impact on air quality.

- (2) **No Impact:** Since the project exceeds more than 2,000 square feet in floor area, the project is subject to SJVAPCD rule 9510 (Indirect Source Review). This rule fulfills the SJVAPCD's emission reduction commitments in the PM10 and Ozone Attainment Plans through design features or by payment of applicable off-site mitigation fees.
- (3) **No Impact:** Applicable General Plan Policies will be applied to the project; therefore, project-specific effects will be less than significant for this impact (see mitigation measures above).
- (4) **Less Than Significant Impact:** The automotive dealership use is not a significant contributor to air pollution levels. The nearest sensitive uses are the residences to the south and east of the site. The primary source of air pollution associated with the development would be traffic related. Since the traffic impacts are within the scope of the MEIR, so are the traffic-related air quality impacts. The PM10 emissions created through construction activities will be mitigated as called for by the MEIR with the mitigation measure listed above.
- (5) **Less Than Significant Impact:** The proposed project will not produce objectionable odors. Construction related odors generated from equipment will be mitigated to a less than significant level with the incorporation of MEIR mitigation measures. All automotive repair activities will be conducted indoors.

3. GENERATION OF NOISE

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable noise impacts expected after application of mitigations/policies:

Direct Impacts

Effect: Future automobile traffic noise levels and roadway construction and maintenance activities resulting from development of the Urban Area General Plan will exceed the City's noise thresholds at various locations, but particularly in areas adjacent to heavily traveled roadways (see MEIR Table 3-3, page V-3-10, and Figure VII-2 and Table 3-6, pages V-3-18 and V-3-19).

Effect: Expected noise from airport operations and airport construction projects may expose up to 468 dwellings and three churches to noise levels of 65 dB CNEL and up to eight dwellings to noise levels of 70 dB CNEL.

Effect: Expose noise-sensitive land uses to noise from the construction of bicycle and transit projects.

Effect: Expose noise-sensitive land uses to noise from freight and passenger rail operations.

Cumulative Impacts

Effect: Traffic from development in the City of Modesto would, when combined with traffic from new development in the County and other cities, contribute to a cumulative increase in roadside noise levels on major roads and highways throughout Stanislaus County.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Noise policies and mitigation measures pertinent to the project being analyzed in this Initial Study are found on pages V-3-11 through V-3-15 of the Master EIR. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project and any new measures are listed in Section V, Mitigation Applied to Project.

Discussion:

The mitigation measure to be applied to this project includes N-3 from the Master EIR. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-3.B of the MEIR discloses noise impacts resulting from development of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project -specific effect not analyzed in the Master EIR.

Significance Criteria: Determination of the proposed project's effects are based on the following thresholds. Project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No. Impact
3. GENERATION OF NOISE				
1) The proposed project will exceed the standards for noise level and hours of operation established by the Modesto noise ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) The proposed project will not comply with the noise policies of, or otherwise be inconsistent with, the Modesto Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) The proposed project will result in an increase in ambient noise levels in the project vicinity above those disclosed in the Master EIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) The proposed project will result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels disclosed in the Master EIR implementation of the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

(1,2,3) **Less Than Significant Impact:** The project is consistent with the noise policies of the General Plan. General Plan MEIR Mitigation Measure N-7 requires non-residential development to demonstrate that the project will incorporate measures to reduce noise impacts to a less than significant level.

Some land uses are considered more sensitive to noise levels than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically associated with the uses. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial (other than lodging facilities) and industrial land uses.

The General plan sets a noise threshold of 65 dBA, Ldn for single-family residential uses measured at the outdoor activity areas (backyards). The nearest sensitive receptors are the residences approximately 250 feet to the southeast of the project site. The proposed commercial building is not anticipated to generate noise levels that exceed the 65dBA threshold for sensitive receptors. Business activities will be conducted indoors with the exception of loading operations and traffic coming and going from the site. There will be automotive repair activity occurring onsite however the repair bays are all indoors, which will minimize noise traveling to any sensitive receptors offsite. There is an existing eight-foot-tall wall separating the site from the residential development to the southeast, which will further assist with the attenuation of sound. The project does not create a significant noise impact.

- (4) **Less Than Significant Impact:** The project will not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity. There will be some construction related noise, but the noise mitigation measure N-3 which requires compliance with the noise ordinance and limits construction related noise impacts has been incorporated.

4. EFFECTS ON AGRICULTURAL LANDS

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on agricultural lands expected after application of mitigations/policies:

Direct Impacts

Effect: Between 1995 and 2025, development of the Urban Area General Plan may convert up to approximately 26,000 acres of farmland in various categories in the Planned Urbanizing Area to urban uses.

Effect: Approximately 1,200 acres of urban development along a 28.5-mile boundary 350 feet wide between urban and agricultural uses could be affected by continued agricultural operations, including noise, dust, and chemical overspray or drift.

Cumulative Impacts

Effect: Growth within Modesto's planning area would contribute considerably to the loss of agricultural land within Stanislaus County, accounting for the conversion of as much as approximately 26,000 acres of farmland in various categories in the Planned Urbanizing Area from 1995 to 2025.

b. Master EIR and/or New Mitigation Measures Pertinent to the Project

Agricultural land mitigation measures pertinent to the proposed project are found on pages V-4-6 to and V-4-8 of the Master EIR. All mitigation measures appropriate to the project and any new mitigation to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-4.B of the Master EIR discloses the impacts resulting from the implementation of the Urban Area General Plan on agricultural lands. The following is an analysis of whether the proposed project would result in a new, significant, project -specific effect not previously analyzed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. EFFECTS ON AGRICULTURAL LANDS				
1) The proposed project is inconsistent with the Urban Area General Plan's policies relating to agricultural land.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project will either directly or indirectly result in the development of land outside the 2008 Urban Area General Plan's planning area boundary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project will conflict with existing zoning for agricultural use, or there is an existing Williamson Act contract on the project site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project will involve other changes in the existing environment not anticipated in the Master EIR which, due to their location or nature, could result in conversion of farmland to non-agricultural use.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the General Plan land use policies. It is an infill project proposed within the urbanized area of the City. The site is currently vacant and no agricultural land will be converted for the development of the proposed projects.
- (2) **No Impact:** The project is within the Baseline-Developed area of the City and therefore will not result in the development of land outside the 2008 planning area boundaries.
- (3) **No Impact:** The project site is not zoned for agriculture nor is it under Williamson Act contract.
- (4) **No Impact:** The project will not involve changes to the existing environment that could result in the conversion of farmland to non-agricultural uses. The General Plan designates the property as Regional Commercial. The adjacent property is also designated Regional Commercial.

5. INCREASED DEMAND FOR LONG-TERM WATER SUPPLIES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on long-term water supplies expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts have been disclosed in the Master EIR.

Cumulative Impacts

Effect: Operational yields of the Modesto and Turlock subbasins, both of which underlie the City of Modesto, are unknown, although the City is participating in a study with the United States Geological Survey in order to quantify the operational yields of both subbasins. Groundwater withdrawals from both basins by the City, when combined with other users' withdrawals, may result in overdrafting both subbasins.

Effect: Despite available options, during drought years, significant water shortages are forecast for the San Joaquin River basin, which includes both the Modesto and Turlock subbasins, by 2020. Modesto would make a cumulatively considerable contribution to the cumulative impact on water supply under drought conditions.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Water supply mitigation measures pertinent to the proposed project are found on pages V-5-6 through V-5-12 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-5.B of the Master EIR discloses impacts on long-term water supplies resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
5. INCREASED DEMAND FOR LONG-TERM WATER SUPPLIES				
1) The proposed project is inconsistent with water supply policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Water demand for the proposed project will exceed estimates for similar projects or for development on the project site anticipated in the Urban Area General Plan or sufficient water supplies are not otherwise available to serve the project from existing entitlements and resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would deplete groundwater supplies to a greater degree than anticipated in the Urban Area General Plan or would interfere with groundwater recharge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the water supply policies in the General Plan.
- (2) **No Impact:** The project was referred to Land Development Engineering Staff who determined the water proposed development will not exceed estimates or water supplies for needed to serve other entitlements and resources.
- (3) **No Impact:** The proposed project is consistent with the land uses and water demands assumed in the General Plan. The project would not have a significant effect on ground water recharge or depletion of long-term water supplies.

6. INCREASED DEMAND FOR SANITARY SEWER SERVICES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on sanitary sewer services after application of mitigations/policies:

Direct Impacts

Effect: Development resulting from implementation of the Urban Area General Plan will require substantial new sewage treatment and disposal capacity, treatment plant improvements, sewer mains and collection lines, and pump stations. The Wastewater Master Plan anticipates the need for these facilities and its EIR evaluates the impact of developing those facilities. Potential impacts include degradation of water quality through erosion and chemical releases; localized flooding; construction noise; exposure of construction workers and the public to hazardous materials; and on the habitat of the elderberry longhorn beetle, burrowing owl, and Swainson's hawk, as well as certain other regulated habitats. All of these impacts are mitigated to a less-than-significant level.

Additional impacts that are not mitigated to a less-than-significant level include loss of farmland cause by construction of the Phase IA tertiary treatment facility at the Jennings Road Secondary Treatment Facility, an increase in pollutant loads from increased wastewater flows to the San Joaquin River, and an increase in noise and criteria air pollutants due to construction activities, including traffic.

Cumulative Impacts

Effect: No additional cumulative impacts were identified in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Sewer service mitigation measures pertinent to the proposed project are found on pages V-6-3 through V-6-8 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-6.B of the Master EIR discloses impacts on the Increased Demand for Sanitary Sewer Service resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
6. INCREASED DEMAND FOR SANITARY SEWER SERVICES				
1) The proposed project is inconsistent with wastewater policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project will generate sewage flows greater than those anticipated in the Urban Area General Plan for the project site.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project will result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the Modesto Urban Area General Plan both in land use and intensity.
- (2) **No Impact:** The project is consistent with the Regional Commercial designation and will generate sewer flows within what was anticipated for the project site.
- (3) **No Impact:** The project was referred to Land Development Engineering Staff who determined there is adequate capacity to accommodate the proposed development in addition to existing commitments.

7. LOSS OF SENSITIVE WILDLIFE AND PLANT HABITAT

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on sensitive wildlife and plant habitat expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant impacts on sensitive wildlife and plant habitat are expected to occur with the application of the policies contained in the Urban Area General Plan.

Cumulative Impacts

Effect: Implementation of the Urban Area General Plan will contribute to the cumulative impact of habitat loss in the San Joaquin Valley. Requiring density development than has occurred in the past or that is expected in the future would minimize the City's contribution to the cumulative loss of habitat. Nonetheless, this is a significant and unavoidable impact.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Wildlife and plant habitat mitigation measures pertinent to the proposed project are found on pages V-7-17 through V-7-24 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-7.B of the Master EIR discloses impacts on the Loss of Sensitive Wildlife and Plant Habitat resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7. LOSS OF SENSITIVE WILDLIFE AND PLANT HABITAT				
1) The project is inconsistent with the policies pertaining to the loss of sensitive wildlife and plant habitat contained in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Consultation with the California Department of Fish and Game or the U.S. Fish and Wildlife Service determines that the project would have a significant effect on a candidate, sensitive, or special status species in excess of the impact disclosed in the Master EIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means, in excess of the impact disclosed in the Master EIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project would substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6) The proposed project would conflict with provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the General Plan policies related to the loss of sensitive wildlife and plant habitat.
- (2) **No Impact:** The project site is not a biologically sensitive site as defined by Figures V-7-1a through V 7-1e of the MEIR. The California Department of Fish and Game and the U.S. Fish and Wildlife Service were consulted in the production of the MEIR.

- (3) **No Impact:** The site does not qualify as a federally protected wetland per Section 404 of the Clean Water Act.
- (4) **No Impact:** The project site is not a biologically sensitive site as defined by Figures V-7-1a through V 7-1e of the MEIR. The movement of fish or birds or other wildlife would not be significantly affected by the project.
- (5) **No Impact:** There is no conflict with any local policies or ordinances protecting biological resources.
- (6) **No Impact:** There is no conflict with any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional or state habitat conservation plan.

8. DISTURBANCE OF ARCHAEOLOGICAL/HISTORICAL SITES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on archaeological/historical sites expected after application of mitigations/policies:

Direct Impacts

Effect: Modification resulting in a substantial adverse change in the significance of a historic resource or the demolition of a listed or eligible historic resource.

Effect: The modification or demolition of a structure more than 50 years in age may be significant.

Effect: Discovery of archaeological resources in areas outside of the riparian corridors, as a result of construction activities.

Effect: Construction in an area of high archaeological sensitivity.

Cumulative Impacts

Effect: No additional cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Archaeological or historic mitigation measures pertinent to the project being analyzed in this Initial Study are found on page V-8-16 through V-8-20 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Applied to Project:

Discussion:

The appropriate mitigation to be applied to this project includes the measures listed in MEIR Table V-8-1 (b-f) from the Master EIR. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-8.B of the MEIR discloses impacts on archaeological/historical resources resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project -specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
8. DISTURBANCE OF ARCHAEOLOGICAL/ HISTORICAL SITES				
1) The proposed project is inconsistent with the archaeological/historical resource policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would demolish a building eligible for listing as a historic resource or remove a landmark from the Modesto inventory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would modify or demolish a structure more than 50 years in age.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The project would adversely affect a cultural resource that is either listed or eligible for listing in the California Register of Historical Resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the archeological and historical resource policies in the General Plan.
- (2) **No Impact:** There are no existing structures on the project site.
- (3) **No Impact:** There are no existing structures or other resources on the project site.
- (4) **No Impact:** The project would not affect a resource that is listed or eligible for listing in the California Register of Historic Resources.
- (5) **No Impact:** The project does not conflict with local policies affecting biological resources.

9. INCREASED DEMAND FOR STORM DRAINAGE

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on storm drainage expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: The population of Stanislaus County is projected to increase in a fashion similar to that of Modesto, resulting in additional urban development and associated increases in impervious surface area and associated increases in storm water runoff. Cumulative hydrologic impacts of storm water flows from Modesto urban areas and other areas of the County could occur due to the fixed capacity of MID and TID irrigation canals to convey drainage west to the San Joaquin River. If drainage channels in some areas prove insufficient to handle the increased drainage discharges, existing storm water runoff from urban and agricultural areas during large storm events would have to be interrupted until water levels receded to a point allowing the resumption of discharges to the channel. Ceasing discharges to drainage channels could cause inundation in and around the drainage conveyance pipeline systems, surface drainage channels, detention basins, and other urban areas. This cumulative impact is considered significant and unavoidable.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Storm Drainage mitigation measures pertinent to the project being analyzed in this Initial Study are found on pages V-9-4 through V-9-9. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project:

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-9.B of the MEIR discloses impacts on the demand for storm drainage resulting from development of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
9. INCREASED DEMAND FOR STORM DRAINAGE				
1) The proposed project is inconsistent with the storm drainage policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite, as compared to impacts anticipated to result from the Urban Area General Plan or create substantial unanticipated sources of polluted runoff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project does not utilize Low Impact Development strategies to reduce runoff from the site and increase infiltration, resulting in no net increase in runoff before and after development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the storm drain policies in the Urban Area General Plan.
- (2) **No Impact:** The project will not contribute additional water runoff that would exceed the capacity of the storm drainage system. The project will keep all water onsite and construct a storm drain system that meets City Standards.
- (3) **No Impact:** The project will utilize low impact strategies and meet the standards contained in the "Guidance Manual for New Development-Storm Water Quality Control Measures."

10. FLOODING AND WATER QUALITY

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on flooding and water quality expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Flooding and Water Quality mitigation measures pertinent to the project being analyzed in this Initial Study are found on pages V-10-6 through V-10-9 of the Master EIR. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Applied to Project:

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-10.B of the Master EIR provides analysis of Flooding and Water Quality impacts of development of the General Plan, the following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not previously analyzed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
10. FLOODING AND WATER QUALITY				
1) The proposed project is inconsistent with the flooding and water quality policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project does not comply with the regulatory requirements of the federal Clean Water Act or the State Porter-Cologne Act.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would place more housing within a 100-year flood hazard zone than assumed in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project would place structure within a 100-year flood hazard area so that they would impede or redirect floodwater or would substantially alter the existing on-site drainage pattern or a watercourse, in such a way as to cause flooding on- or offsite.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) The proposed project does not comply with Modesto's Guidance Manual for New Development Storm Water Quality Control Measures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6) The proposed project would violate water quality standards or waste discharge requirements.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
7) The proposed project would substantially alter the existing drainage pattern of the site or area or a watercourse in a manner that would result in substantial erosion or siltation on- or offsite in excess of the assumptions of the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8) The proposed project would create or contribute runoff, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, not expected as part of Urban Area General Plan implementation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the flooding and water quality policies in the General Plan.
- (2) **No Impact:** The project would comply with the Federal Clean Water Act and the Porter Cologne Act requirements.
- (3) **No Impact:** The project is not located within a 100-year flood plain and is limited to commercial uses.
- (4) **No Impact:** The project is not located within a 100-year flood plain.
- (5) **No Impact:** The project will comply with the Guidance Manual for New Development Storm Water Quality Control Measures.
- (6) **No Impact:** The project will not violate water quality standards or waste discharge requirements
- (7) **No Impact:** The project would not substantially alter the existing drainage pattern of the site, area or a watercourse in a manner that would result in erosion or siltation.
- (8) **No Impact:** The project will not contribute additional water runoff that would exceed the capacity of the storm drainage system or provide substantial additional sources of polluted runoff.

11. INCREASED DEMAND FOR PARKS AND OPEN SPACE

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on parks and open space expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Parks and open space mitigation measures pertinent to the proposed project are found on pages V-11-3 through V-11-9 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Applied to Project:

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-11.B of the MEIR discloses impacts of the Urban Area General Plan on parks and open space. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. Project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
11. INCREASED DEMAND FOR PARKS AND OPEN SPACE				
1) The proposed project is inconsistent with the parks and open space policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would eliminate parks or open space.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would cause an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility in question would occur or be accelerated or the proposed project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the parks and open space policies in the General Plan.
- (2) **No Impact:** The project is on a vacant site designated for Regional Commercial development. The project would not eliminate an existing park or designated open space.
- (3) **No Impact:** The project is designated for Regional Commercial development and would not cause an increase in the use of existing neighborhood and regional parks.

12. INCREASED DEMAND FOR SCHOOLS

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on school facilities expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR. By statute, the impact of new students is considered to be mitigated below a level of significance by payment of school impact fees and the exercise of any or all of the financing options set out in Government Code Section 65997.

Cumulative Impacts

Effect: Similar to direct impacts of implementation of the Urban Area General Plan, no residual significant direct impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Mitigation relies upon the implementation of the policies in place under the Modesto Urban Area General Plan. As long these policies are applied to all subsequent projects, no new mitigation is necessary. Further, payment of school impact fees and compliance with SB 50 is statutorily deemed to be full mitigation of school impacts (Government Code Section 65995).

The following schools mitigation measures on pages V-12-5 through V-12-7 of the Master EIR are pertinent to the proposed project. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project. Those measures are listed in Section V, Mitigation Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-12.B of the Master EIR discloses impacts resulting from implementation of the Urban Area General Plan associated with increased demand for schools. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
12. INCREASED DEMAND FOR SCHOOLS				
1) The proposed project is inconsistent with the policies relating to schools in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project does not comply with SB 50/Proposition 1A funding provisions, or succeeding measures which state that compliance results in less-than-significant impacts on schools.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the policies relating to schools in the General Plan.
- (2) **No Impact:** The project was referred to Modesto City Schools who indicated no opposition to the project.

13. INCREASED DEMAND FOR POLICE SERVICES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on police services expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Police services mitigation measures pertinent to the proposed project are found on pages V-13-2 through V-13-5 of the Master EIR. All mitigation measures appropriate to the project to be

incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

Police services mitigation measures pertinent to the proposed project are found on pages V-13-2 through V-13-5 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

c. Project-Specific Effects

Section V-13.B of the Master EIR discloses impacts on police services resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
13. INCREASED DEMAND FOR POLICE SERVICES				
1) The proposed project is inconsistent with policies relating to police services in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would result in the need for new or significantly altered facilities not considered as part of the Urban Area General Plan or Master EIR which could cause new significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the policies relating to police services in the General Plan.
- (2) **No Impact:** The project would not result in the need for construction of new or significantly altered facilities which could cause new significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives. The project meets City Standards for emergency services access.

14. INCREASED DEMAND FOR FIRE SERVICES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on fire services expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Fire Services mitigation measure(s) pertinent to the project being analyzed in this Initial Study are found on pages V-14-4 through V-14-7 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-14.B of the Master EIR discloses impacts on fire services resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
14. INCREASED DEMAND FOR FIRE SERVICES				
1) The proposed project is inconsistent with the fire service policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would result in the need for new or significantly altered facilities not considered as part of the Urban Area General Plan or Master EIR which could cause new significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3) The proposed project, based upon substantial evidence, would cause the erosion or elimination of fire protection services in adjoining fire protection districts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the fire service policies in the General Plan.
- (2) **No Impact:** The project would not result in the need for construction of new or significantly altered facilities which could cause new significant environmental impacts in order to maintain acceptable service ratios, response times or other performance objectives.
- (3) **No Impact:** The project would not significantly impact adjacent fire districts or result in the elimination of fire protection services.

15. GENERATION OF SOLID WASTE

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on solid waste expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Solid waste mitigation measures pertinent to the proposed project are found on pages V-15-4 through V-15-7 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-15.B of the Master EIR discloses solid waste impacts resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. Project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
15. GENERATION OF SOLID WASTE				
1) The project is inconsistent with the solid waste policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The County is unable to expand its solid waste disposal capacity, as expected, causing all new development to result in cumulative impacts on the County's disposal capacity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the solid waste policies in the General Plan.
- (2) **No Impact:** This project was referred to the City's Solid Waste Division for review, and there is not a problem serving this project.

16. GENERATION OF HAZARDOUS MATERIALS

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts regarding hazardous materials expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Hazardous materials mitigation measures pertinent to the proposed project are found on pages V-16-8 through V-16-13 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of this project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-16.B of the Master EIR discloses impacts on hazardous materials resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
16. GENERATION OF HAZARDOUS MATERIALS				
1) The project is inconsistent with the hazardous materials policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or the environment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project would be constructed on a contaminated site not known to the State of California as of March 2008.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the hazardous materials policies in the General Plan.
- (2) **No Impact:** The project does comply with all applicable federal, state, and county standards and regulations relative to the handling, storage, disposal, and transport of hazardous or toxic materials or wastes. (No hazardous materials will be involved with this project).
- (3) **No Impact:** The project would not be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as a result, would not create a significant hazard to the public or the environment.
- (4) **No Impact:** The project site is not known to contain any contaminants.

17. GEOLOGY, SOILS, AND MINERAL RESOURCES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts related to geology, soils, and mineral resources expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

Geology, soils, and mineral resource mitigation measures pertinent to the proposed project are found on pages V-17-9 and V-17-10 of the Master EIR. All mitigation measures appropriate to the project to be incorporated into or made conditions of approval of the proposed project are listed in Section V, Mitigation Measures Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-17.B of the Master EIR discloses geology, soils, and mineral resource impacts resulting from implementation of the Urban Area General Plan. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. Project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
17. GEOLOGY, SOILS, AND MINERAL RESOURCES				
1) The project is inconsistent with policies relating to geology, soils, and mineral resources contained in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would expose people or structures to potential substantial adverse effects including the risk of loss, injury, or death involving fault rupture, strong seismic activity; location on an	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
expansive soil; result in the loss of topsoil; location on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater; result in the loss of known mineral resources that would be of value to the region and the state; or result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.				

Discussion:

- (1) **No Impact:** The project is consistent with policies relating to geology, soils, and mineral resources in the General Plan.
- (2) **No Impact:** The project would not be located on soil that is unstable, or that would become unstable as a result of the project. There are no known mineral resources of value to the region and the state on the property.

18. ENERGY

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts pertaining to energy expected after application of mitigations/policies:

Direct Impacts

Effect: Continued development in the Planned Urbanizing Area would have an impact on available energy supplies. Energy consumption likely would increase substantially by 2025 as a result of implementation of the Urban Area General Plan.

Cumulative Impacts

Effect: Implementation of the Urban Area General Plan will have a cumulatively considerable impact on energy consumption.

b. Master EIR and/or New Mitigation Measures Applied to the Project

The following energy mitigation measures pertinent to the proposed project are found on pages V-18-2 through V-18-8 in the Master EIR. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project. Those measures will be listed in Section V, Mitigation Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-18.B of the Master EIR discloses impacts of implementing the Urban Area General Plan on energy resources. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
18. ENERGY				
1) The proposed project is inconsistent with policies relating to energy in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would result in energy consumption during construction, operation, maintenance, or removal that is more wasteful, inefficient, and unnecessary than assumed in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the energy policies in the General Plan.
- (2) **No Impact:** The project would not result in energy consumption during construction, operation, maintenance or removal that is more wasteful, inefficient and unnecessary than assumed in the General Plan.

19. EFFECTS ON VISUAL RESOURCES

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts on visual resources expected after application of mitigations/policies:

Direct Impacts

Effect: New development in the Planned Urbanizing Area will occur in areas that are in agricultural production or are otherwise lightly developed, which could lead to the introduction of light and glare in areas that have little nighttime illumination.

Cumulative Impacts

Effect: No additional cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

The following visual resources mitigation measures pertinent to the proposed project are found on pages V-19-3 and V-19-4 in the Master EIR. All mitigation measures appropriate to the proposed project will be incorporated into or made conditions of approval of this project. Those measures will be listed in Section V, Mitigation Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-18.B of the Master EIR discloses impacts of implementing the Urban Area General Plan on energy resources. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
19. EFFECTS ON VISUAL RESOURCES				
1) The proposed project is inconsistent with policies relating to visual resources in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project would degrade views from riverside areas and parks to a greater degree than assumed in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) The proposed project would degrade views of riverside areas from public roadways and nearby properties to a greater degree than assumed in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The project is consistent with the policies relating the visual resources in the General Plan.
- (2) **No Impact:** The project would not impact views from riverside areas and parks.
- (3) **No Impact:** The project would not impact views of riverside areas from roadways or nearby properties.

20. LAND USE AND PLANNING

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts pertaining to land use and planning expected after application of mitigations/policies:

Direct Impacts

Effect: No residual significant direct impacts were disclosed in the Master EIR.

Cumulative Impacts

Effect: No residual significant cumulative impacts were disclosed in the Master EIR.

b. Master EIR and/or New Mitigation Measures Applied to the Project

The following land use and planning mitigation measures pertinent to the proposed project are found on pages V-20-6 through V-20-17 in the Master EIR. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project. Those measures will be listed in Section V, Mitigation Applied to Project.

Discussion:

No mitigation measures from the Master EIR are required. No new or additional mitigation measures or alternatives are required to reduce project impacts to a less-than-significant level.

c. Project-Specific Effects

Section V-20.B of the Master EIR discloses impacts of implementing the Urban Area General Plan on land use and planning. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
20. LAND USE AND PLANNING				
1) The proposed project is inconsistent with land use and planning policies in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) The proposed project contains elements that would physically divide an established community in a way not assumed in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
3) The proposed project conflicts with a land use plan, policy or regulation established for the purpose of avoiding or mitigating an environmental impact by an agency that has jurisdiction over the proposed project.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) The proposed project conflicts with an applicable habitat conservation plan or natural community conservation plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- (1) **No Impact:** The automotive dealership is consistent with the City of Modesto Urban Area General Plan, because the project site is located within a Commercial area which accommodates the type of development proposed, and it does not represent an increase in intensity of use or development beyond that which is already allowed by the existing zoning of the site (Specific Plan (Regional Commercial)).
- (2) **No Impact:** The project is infill development which will not divide an established community. The site is located at the corner of an Arterial Street and Expressway and was planned for Regional Commercial uses.
- (3) **No Impact:** The proposed project does not represent a conflict with any land use plan, policy or regulation established for the purpose of avoiding or mitigating an environmental impact by an agency that has jurisdiction over the proposed project.
- (4) **No Impact:** The proposed project is not subject to any habitat conservation plan or natural community conservation plan.

21. CLIMATE CHANGE

a. Significant Effects Identified in the Master EIR

The Master EIR discloses the following residual significant and unavoidable impacts pertaining to climate change expected after application of mitigations/policies:

Direct Impacts

Effect: Impacts resulting from implementation of the Urban Area General Plan are not substantial enough to result in a significant direct impact on climate change, as disclosed in the Master EIR.

Cumulative Impacts

Effect: Implementation of the Urban Area General Plan will have a cumulatively considerable impact on climate change.

b. Master EIR and/or New Mitigation Measures Applied to the Project

The following climate change mitigation measures pertinent to the proposed project are found on pages V-21-7 through V-21-10 in the Master EIR. All mitigation measures appropriate to the project will be incorporated into or made conditions of approval of this project. Those measures will be listed in Section V, Mitigation Applied to Project.

c. Project-Specific Effects

Section V-18.B of the Master EIR discloses impacts of implementing the Urban Area General Plan on climate change. The following is an analysis of whether the proposed project would result in a new, significant, project-specific effect not disclosed in the Master EIR.

Significance Criteria: Determination of project effects will be based on the following thresholds. The project-specific effects will be less than significant unless:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
21. CLIMATE CHANGE				
1) The proposed project is inconsistent with policies relating to climate change in the Urban Area General Plan.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) The proposed project would result in average automobile trip lengths or CO ₂ emissions higher than those assumed in the Master EIR.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) The proposed project would conflict with the Sustainable Communities Strategy or Alternative Planning Strategy that the Air Resources Board has agreed will achieve the goals of AB 32.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- (1) **Less Than Significant Impact:** The City of Modesto General Plan Master EIR addressed potential climate change impacts due to development and other activities associated with the Urban Area General Plan (UAGP). The Urban Area General Plan Master EIR (MEIR) determined that buildout of the UAGP would make a cumulatively considerable contribution to global climate change. The UAGP nonetheless authorizes development that will contribute to global climate change by virtue of the production of greenhouse gases. The MEIR states the projected rate of growth of vehicle miles traveled (VMT) will increase the City's contribution to global climate change as the City develops. Development under the UAGP is expected to generate approximately 1,096,226.4 metric tons per year above 2005 emissions. The City Council adopted a Statement of Overriding Considerations in 2008, finding that the benefits of the UAGP outweighed the City's increased contribution to global climate change.

The MEIR identifies policies CL-3 through CL-26 as policies in effect that have been determined to reduce, avoid or mitigate air quality environmental impacts within the existing City limits and within the Planned Urbanizing Areas as they annex and develop. These policies include but are not limited to, the use of shade trees to reduce the heat island effect, current energy efficient building standards to reduce energy consumption, and the inclusion of facilities for alternative transportation. The proposed project will develop in accordance with climate change policies included in the UAGP and the MIER.

- (2) **Less Than Significant Impact:** Climate change is an inherently cumulative impact because no single project can produce enough greenhouse gases to substantially alter the global climate. No thresholds have been set for individual or cumulative greenhouse gases. Nonetheless, the proposed project would result in greenhouse gas emissions due primarily to automobile travel and energy use for lighting, heating, cooling and other activities. The primary source of CO₂ emissions generated from the project would be related to automobile trips. As identified under the traffic and circulation discussion, traffic engineering staff has determined that the project will be in substantial conformance with the GP MEIR assumptions for traffic generation, the CO₂ emissions generated from the project would also be in substantial conformance with that which was assumed under the GP MEIR analysis.
- (3) **Less Than Significant Impact:** A Sustainable Communities Strategy has not yet been implemented by the ARB. Future development will be required to comply with the provisions of the Sustainable Communities Strategy once it is established.

V. MITIGATION MEASURES APPLIED TO THE PROPOSED PROJECT

If the Initial Study results in the determination that a Finding of Conformance can be adopted for the proposed project Section A below applies. If the Initial Study results in the determination that a Finding of Conformance cannot be adopted and a Mitigated Negative Declaration/EIR must be prepared for the project then Section B, below applies.

A. Master EIR Mitigation Measures Applied to the Project

Pursuant to Public Resources Code Section 21157.1(c), in order for a Finding of Conformance to be made, all appropriate mitigation measures from the Master EIR shall be incorporated into the proposed project. Urban Area General Plan Policies/Master EIR mitigation measures shall be made part of the proposed project prior to approval by means of conditions of project approval or incorporation into the appropriate document or plan.

All applicable and appropriate mitigation measures have been applied to the project (see mitigation measures listed below).

B. New or Additional Mitigation Measures or Alternatives Required

Where the project's effects would exceed the significance criteria for each environmental impact category, a mitigated negative declaration or Focused EIR must be prepared. Staff has reviewed the project against the significance criteria thresholds established in the Master EIR for all impact categories in this Initial Study.

A Mitigated Negative Declaration or Focused EIR shall be prepared for the project. The following additional project-specific mitigation measures listed below are necessary to reduce the identified new significant effect:

Traffic and Circulation:

None.

Degradation of Air Quality:

AQ-40: The City of Modesto shall require all access roads, driveways, and parking areas serving new commercial and industrial development are to be constructed with materials that minimize particulate emissions in accordance with the requirements of SJVAPCD Regulation VIII and are appropriate to the scale and intensity of the use.

AQ-42: All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.

AQ-43: All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

AQ-44: All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

AQ-45: With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition.

AQ-46: When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

AQ-47: All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)

AQ-48: Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

AQ-49: Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

AQ-50: Any site with 150 or more vehicle trips per day shall prevent carryout and track out.

The following measures should be implemented at construction sites when required to mitigate significant PM10 impacts(note, these measures are to be implemented in addition to Regulation VIII requirements):

AQ-51: Limit traffic speeds on unpaved roads to 15 mph; and

AQ-52: Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent (1%).

AQ-53: Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.

AQ-54: Install wind breaks at windward side(s) of construction areas.

AQ-55: Suspend excavation and grading activity when winds exceed 20 mph. Regardless of wind speed, an owner/operator must comply with Regulation VIII's 20 percent (20%) opacity limitation.

AQ-56: Limit the area subject to excavation, grading and other construction activity at any one time.

Generation of Noise:

N-3: Construction equipment and vehicles should be equipped with properly operating mufflers according to the manufacturers' recommendations. Air compressors and pneumatic equipment should be equipped with mufflers, and impact tools should be equipped with shrouds or shields. Equipment that is quieter than standard equipment should be utilized. Haul routes that affect the fewest number of people should be selected.

Effects on Agricultural Lands:

None.

Increased Demand for Long-Term Water Supplies:

None.

Increased Demand for Sanitary Sewer Services:

None.

Loss of Sensitive Wildlife and Plant Habitat:

None.

Disturbance of Archaeological/Historic Sites:

MEIR Table V-8-1 (b-f)

- b. Prior to excavation and construction, the prime construction contractor and any subcontractors shall be cautioned on the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, or other cultural materials from the project area.
- c. The project sponsor shall identify a qualified archeologist prior to any demolition, excavation, or construction. The City will approve the project sponsor's selection of a qualified archeologist. The archeologist would have the authority to temporarily halt excavation and construction activities in the immediate vicinity (ten-meter radius) of a find if significant or potentially significant cultural resources are exposed and/or adversely affected by construction operations.
- d. Reasonable time shall be allowed for the qualified archeologist to notify the proper authorities for a more detailed inspection and examination of the exposed cultural resources. During this time, excavation and construction would not be allowed in the immediate vicinity of the find; however, those activities could continue in other areas of the project site.
- e. If any find is determined to be significant by the qualified archeologist, representatives from the construction contractor and the City, the qualified archeologist, and a representative of the Native American community (if the discovery is an aboriginal burial) would meet to determine the appropriate course of action.
- f. All cultural materials recovered as part of a monitoring program would be subject to scientific analysis, professional curation, and a report prepared according to current professional standards.

Increased Demand for Storm Drainage:

None.

Flooding and Water Quality:

None.

Increased Demand for Parks and Open Space:

None.

Increased Demand for Schools:

None.

Increased Demand for Police Services:

None.

Increased Demand for Fire Services:

None.

Generation of Solid Waste:

None.

Generation of Hazardous Materials:

None.

Geology, Soils, and Mineral Resources:

None.

Energy:

None.

Effects on Visual Resources:

None.

Land Use and Planning:

None.

Climate Change:

None.



CITY OF MODESTO

Community and Economic Development Department/Planning Division
1010 Tenth Street, Suite 3300, P.O. Box 642
Modesto, CA 95353
577-5267 491-5798 (fax)

**Administrative Plan Review
Conditions of Approval:
DPR-13-011- Claratina Avenue Automotive Dealerships**

System Number: PLN2013-00025

Applicant: JWG McHenry, LLC

APN(S): 082-010-008 and 082- 010-003

Location: SE corner of McHenry Avenue and Claratina Avenue

Approval Date: 12/10/2013

Appeal Deadline: 12/26/2013

Expiration Date: 12/10/2015

The Director of Community and Economic Development approved the Claratina Avenue Automotive Dealerships on December 10, 2013, subject to the following conditions:

PLANNING

1. All development shall conform to the plot plan and building elevations titled "Infinity Auto Dealership Site Development Plan." stamped approved by the Director of Community and Economic Development on December 10, 2013.
2. Approval of a driveway on McHenry Avenue as shown in the approved plans is contingent on Caltrans approval. Prior to any work on McHenry Avenue, an encroachment permit shall be obtained from Caltrans.
3. Prior to issuance of a building permit, any variation from the approved site plan or building elevations on file with the City must be reviewed and approved by the Director of Community and Economic Development.
4. Prior to issuance of a building permit for future buildings on the southern half of the site: "Auto Dealership" and "Flex Space", the developer shall submit building elevations for the review and approval of the Director of Community and Economic Development.
5. The "Flex Space" building shall not include open garage bays or other openings facing east that could noise that impacts residents to the east, to the satisfaction of the Director of Community and Economic Development.
6. All construction documentation shall be coordinated for consistency, including but not limited to, architectural, structural, mechanical, electrical, plumbing, landscape and irrigation, grading, utility and street improvement plans. All such plans shall be consistent with the approved entitlement plans on file with the Planning Department.
7. Prior to issuance of a building permit, trash enclosures shall be designed using building materials, colors and finishes which are consistent or compatible with those used in the major buildings of the development, as approved by the Director of Community and Economic Development.

8. Prior to issuance of a building permit, the developer shall submit a lighting plan that includes the location and design of proposed lighting fixtures for review and approval by the Director of Community and Economic Development.
9. Along pedestrian corridors, the use of low mounted bollard light standards, which reinforce pedestrian scale, should be used. Steps and ramps should be illuminated wherever possible, with built-in light fixtures to the satisfaction of the Director of Community and Economic Development.
10. The design of light fixtures and their structural supports should be architecturally compatible with the main structures on the site. Light fixtures should be architecturally integrated into the design of a structure to the satisfaction of the Director of Community and Economic Development.
11. Prior to issuance of a building permit, a photometric lighting plan shall be submitted for review and approval by the Community and Economic Development Director. Fixtures should be of a type or adequately shielded so as to prevent glare from normal viewing angles. Said plans shall include specifications of the proposed lighting fixtures and demonstrate the adequate shielding of lighting fixtures to minimize glare or light spillage upon neighboring residents south/east of the project site.
12. All signs shall comply with the sign requirements of the C-3 Zone.
13. The use of individual "channel" lettered signs are encouraged; while "canister" type signs are discouraged.
14. Prior to issuance of a sign permit, individual sign plans for the project shall be submitted for separate review and approval prior to installation.
15. Prior to issuance of a building permit, the applicant shall submit a cross-section drawing, showing how all rooftop equipment is to be screened from view (including dimensions, materials, colors, etc.) to the satisfaction of the Director of Community and Economic Development. Roof-mounted equipment, including but not limited to air conditioners, fans, vents, antennas, and dishes should be set back from the roof edge and placed behind a parapet wall or in an enclosure, so they are not visible to motorists or pedestrians. Screening for equipment should be integrated into the building and roof design by the use of compatible materials, colors and forms. Wood lattice and fence-like coverings are not allowed for screening.
16. Prior to Certificate of Occupancy of any structure, all ground mounted utility structures such as transformers and HVAC equipment shall be located out of view from a public street to the satisfaction of the Director of Community and Economic Development. Equipment shall be placed underground or adequately screened through the use of landscaping or masonry walls.
17. Exterior building elevations showing building wall materials, roof types, exterior colors and appropriate vertical dimensions shall be included in the development construction drawings.

18. Construction drawings shall demonstrate that all building drainage gutters, down spouts, vents, etc. located on exterior walls, are concealed from public view or designed to be architecturally compatible (decorative) with the exterior building design and color to the satisfaction of the Director of Community and Economic Development.

LAND DEVELOPMENT ENGINEERING

19. There is an existing 6-inch sewer fly line in Granger Avenue available for connection. This property appears to have an existing sewer service available to the property line. The connection shall be field verified and utilized before any new connection is proposed. For any new sewer service connection; current waste water connection fees will be applicable prior to building permit issuance.
20. There is an existing 6-inch water main available for connection in Granger Avenue. This property appears to have an existing water service available to the property line. The connection shall be field verified and utilized before any new connection is proposed. For any new water service connections; current water connection fees will be applicable prior to building permit issuance.
21. Storm water generated from this development shall be kept on site to the satisfaction of the City Engineer.
22. Prior to issuance of an encroachment permit, any public improvements that are missing, damaged or not to current City standards shall be designed per City standards in accordance with City Code (Article 7-1.701), standards and specifications, such improvements may include, but not be limited to curb & gutter, drive approach, sidewalk, ADA access ramps, fire hydrants and street lights to the satisfaction of the City Engineer.
23. All existing underground and aboveground utilities, irrigation, and electrical lines shall be protected, relocated, or removed as required by the respective utility company, Modesto Irrigation District, and/or City Engineer. Easements for utilities, irrigation, and electrical lines to remain shall be dedicated as required.
24. Prior to issuance of a building permit, the developer shall dedicate public utility easements as required by the utility companies and the City Engineer.
25. Prior to the issuance of a building permit, improvement plans for any required improvements shall be prepared by a Registered Civil Engineer and approved by the City Engineer or designee. Improvements shall be constructed in accordance with the approved plans.
26. Prior to issuance of a building permit, dedication shall be provided as required by the City Engineer or designee pursuant to improvement plans approved by the Land Development Engineering.
27. The developer shall construct street improvements on McHenry Avenue and Claratina Avenue in accordance with the approved improvements plans.

STORM WATER QUALITY

28. Prior to issuance of a grading or building permit, the developer shall submit improvement plans conforming to design requirements of the current edition City of Modesto Guidance Manual for Development, Stormwater Quality Control Measures.
29. Prior to the issuance of a Grading or Building Permit, property owner shall obtain coverage for project under the State Water Resources Control Board General Permit for Stormwater Discharges Associated with Construction Activity Order No. 2009-009-DWQ, NPDES NO. CAS000002.
30. The General Construction Permit requires the property owner to develop a Stormwater Pollution Prevention Plan (SWPPP) for the project. Prior to issuance of a grading or building permit, provide one copy of SWPPP to Land Development Engineering, Stormwater.
31. Prior to the issuance of a Grading or Building Permit, Developer shall provide plans for trash enclosure(s) to be sufficiently elevated to prevent stormwater run-on from parking lot. Floor of enclosure shall be graded to drain to adjacent landscape area(s).
32. Prior to the issuance of a Grading or Building Permit, Developer shall submit a plan to provide permanent, post-construction treatment (grass swale, vegetative strip, or other approved proprietary device) to remove pollutants from the first 1/2" of stormwater run-off from site.
33. Prior to the issuance of a Grading or Building Permit, property owner shall provide a signed and notarized Stormwater Treatment Device Access and Maintenance Agreement to Land Development Engineering, Stormwater for recording.

PARKS, RECREATION AND NEIGHBORHOOD DEVELOPMENT DEPARTMENT

34. Applicant shall provide, during the building permit submittal process, landscape and Irrigation plans to be reviewed and approved by the Parks, Recreation and Neighborhoods Department Director or designee before final approval of building permit.
35. Irrigation plans shall meet current state and local standards for maximum applied water allocation to the satisfaction of Parks, Recreation and Neighborhoods Department Director or designee.
36. Applicant shall provide a copy of an access agreement with SFPUC that specifies the approval to install landscape planters and landscaping on and in the SFPUC right-of-way, prior to issuance of a building permit.
37. Applicant shall install screen landscaping along the eastern property line that abuts the neighboring single family residential area to the satisfaction of the Parks, Recreation and Neighborhoods Department Director or designee.
38. Parking lot shade trees shall be provided in all new parking areas to meet current parking lot shading requirements (1 tree per 8 stalls, 50% coverage within 10 years).

FIRE DEPARTMENT

39. Hydrant spacing and distribution for this project is 300' on center. Onsite fire hydrants will be needed.
40. The proposed buildings are required to have automatic fire sprinklers installed.
41. Fire Department connections (FDC) for fire sprinklers are to be within 90' of a fire hydrant.
42. Fire access roads or fire lanes conforming to California Fire Code (CFC) section 505 is required. Fire lanes shall have a minimum width of 20', provided with an all-weather surface that will withstand the imposed load of a 60,000 lbs fire apparatus. Turns or changes in direction of the fire lane shall be designed with 25' inside and 45' outside turning radii. The driveway access at McHenry does not meet the minimum turning radii.

BUILDING SAFETY

43. All aspects of this project to comply with current City of Modesto Standards and also current California Building, Electrical, Mechanical, Plumbing, Energy , Green codes adopted by the City of Modesto.
44. Provide permanently anchored bicycle racks within 200 feet of the entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack. Provide secure bicycle parking for 5 percent of motorized vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include: Covered, lockable enclosures with permanently anchored racks for bicycles, Lockable bicycle rooms with permanently anchored racks or Lockable, permanently anchored bicycle lockers.
45. Provide designated parking spaces for low-emitting, fuel-efficient or carpool/van pool vehicle.
46. Building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements

SOLID WASTE

47. Prior to issuance of a building permit, the developer shall submit trash enclosure plans consistent with City standards for review and approval to the satisfaction of Integrated Waste Specialist or designee.

GENERAL CONDITIONS

48. Prior to issuance of a building permit, the developer shall provide documentation satisfactory to the Director of Community and Economic Development Director that the proposed project has reviewed and approved by the San Francisco Public Utilities Commission.

49. All department Conditions of Approval for the project shall be included on the sheet following the title sheet, which shall be continuously maintained on-site during project construction to the satisfaction of the Chief Building Official.
50. All landscaping, fences, and walls shall be maintained and the premises shall be kept free of weeds, trash, and other debris.
51. The Capital Facilities Fees payable at the time of the issuance of a building permit for any construction in this development shall be based on the rates in effect at time of issuance of the building permit.
52. Except as amended herein, or by reference, all development shall be in accordance with the Coffee-Claratina Specific Plan.
53. Prior to start of construction, all-weather, hard-surfaced roadways shall be constructed and maintained free of obstructions at all times during construction as required by Director of Community and Economic Development.
54. The property owner and developer shall, at their sole expense, defend, indemnify and hold harmless the City of Modesto, its agents, officers, directors and employees, from and against all claims, actions, damages, losses, or expenses of every type and description, including but not limited to payment of attorneys' fees and costs, by reason of, or arising out of, this development approval. The obligation to defend, indemnify and hold harmless shall include but is not limited to any action to arbitrate, attack, review, set aside, void or annul this development approval on any grounds whatsoever. The City of Modesto shall promptly notify the developer of any such claim, action, or proceeding.
55. The Capital Facilities Fees payable at the time of the issuance of a building permit for any construction in this development shall be based on the rates in effect at time of issuance of the building permit.

In addition, the following recommended Conditions of Approval are mitigation measures from the Modesto Urban Area General Plan Master Environmental Impact Report that should be applied to the project:

Air Quality:

AQ-40: The City of Modesto shall require all access roads, driveways, and parking areas serving new commercial and industrial development are to be constructed with materials that minimize particulate emissions in accordance with the requirements of SJVAPCD Regulation VIII and are appropriate to the scale and intensity of the use.

AQ-42: All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover.

AQ-43: All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

AQ-44: All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

AQ-45: With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition.

AQ-46: When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained.

AQ-47: All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday. (the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)

AQ-48: Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

AQ-49: Within urban areas, track out shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday.

AQ-50: Any site with 150 or more vehicle trips per day shall prevent carryout and track out.

The following measures should be implemented at construction sites when required to mitigate significant PM10 impacts(note, these measures are to be implemented in addition to Regulation VIII requirements):

AQ-51: Limit traffic speeds on unpaved roads to 15 mph; and

AQ-52: Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent (1%).

AQ-53: Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.

AQ-54: Install wind breaks at windward side(s) of construction areas.

AQ-55: Suspend excavation and grading activity when winds exceed 20 mph. Regardless of wind speed, an owner/operator must comply with Regulation VIII's 20 percent (20%) opacity limitation.

AQ-56: Limit the area subject to excavation, grading and other construction activity at any one time.

Generation of Noise:

N-3: Construction equipment and vehicles should be equipped with properly operating mufflers according to the manufacturers' recommendations. Air compressors and pneumatic equipment should be equipped with mufflers, and impact tools should be equipped with shrouds or shields. Equipment that is quieter than standard equipment should be utilized. Haul routes that affect the fewest number of people should be selected.

Disturbance of Archaeological/Historic Sites:

MEIR Table V-8-1 (b-f)

b. Prior to excavation and construction, the prime construction contractor and any subcontractors shall be cautioned on the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, or other cultural materials from the project area.

c. The project sponsor shall identify a qualified archeologist prior to any demolition, excavation, or construction. The City will approve the project sponsor's selection of a qualified archeologist. The archeologist would have the authority to temporarily halt excavation and construction activities in the immediate vicinity (ten-meter radius) of a find if significant or potentially significant cultural resources are exposed and/or adversely affected by construction operations.

d. Reasonable time shall be allowed for the qualified archeologist to notify the proper authorities for a more detailed inspection and examination of the exposed cultural resources. During this time, excavation and construction would not be allowed in the immediate vicinity of the find; however, those activities could continue in other areas of the project site.

e. If any find is determined to be significant by the qualified archeologist, representatives from the construction contractor and the City, the qualified archeologist, and a representative of the Native American community (if the discovery is an aboriginal burial) would meet to determine the appropriate course of action.

All cultural materials recovered as part of a monitoring program would be subject to scientific analysis, professional curation, and a report prepared according to current professional standards.

Steve Mitchell & PK
Patrick Kelly, Planning Division Manager

CITY OF MODESTO

**FINAL MASTER ENVIRONMENTAL IMPACT REPORT
FOR THE URBAN AREA GENERAL PLAN UPDATE**

October 2008

SCH #2007072023

**City of Modesto
Community and Economic Development Department**

Final

**Master Environmental Impact Report for the City of
Modesto Urban Area General Plan Update**

(State Clearinghouse #2007072023)

Prepared for:

City of Modesto
Community and Economic Development Department
1010 Tenth Street, Suite 3300
Modesto, CA 95354
Contact: Cindy van Empel
209/577-5267

Prepared by:

ICF Jones & Stokes
630 K Street, Suite 400
Sacramento, CA 95814
Contact: Terry Rivasplata
916/737-3000

October 2008

TABLE OF CONTENTS

Page

Chapter I	Executive Summary	I-1
	A. Introduction.....	I-1
	Final Master EIR.....	I-1
	B. Purpose of This Environmental Impact Report	I-1
	C. Project Description.....	I-2
	1. Updates to the General Plan.....	I-3
	2. Objectives	I-7
	3. Description of the Urban Area General Plan	I-7
	4. Areas of Known Controversy	I-7
	D. Summary of Impacts and Mitigation Measures	I-10
	1. Alternatives.....	I-10
	2. Other California Environmental Quality Act–Related Conclusions.....	I-10
	E. Required Approvals	I-20
Chapter II	Implementation and Use of the Master Environmental Impact Report.....	II-1
	A. Required Contents of a Master Environmental Impact Report.....	II-1
	1. Public Resources Code 21157(b)(1)	II-1
	2. Public Resources Code 21157(b)(2)	II-1
	3. Public Resources Code Section 21157(b)(3)	II-2
	B. City of Modesto Urban Area General Plan Growth Strategy and Anticipated Subsequent Projects.....	II-3
	1. Redevelopment Area.....	II-3
	2. Baseline Developed Area.....	II-3
	3. Planned Urbanizing Area.....	II-4
	C. Anticipated Subsequent Projects.....	II-4
	1. Sphere-of-Influence Amendment.....	II-5
	2. Annexation.....	II-6
	3. Comprehensive Plans.....	II-7
	4. Specific Plans.....	II-8
	5. Zoning	II-8
	6. Miscellaneous Land Use Permits.....	II-8
	7. Subdivisions	II-9

8. Development Agreements.....	II-9
9. Capital Improvement Program.....	II-10
10. Redevelopment Plan	II-10
11. Parks Facilities Plans	II-10
12. Stanislaus County Airport Land Use Plan	II-11
13. Household Hazardous Waste Element.....	II-11
14. Source Reduction and Recycling Element.....	II-11
15. Wastewater Master Plan	II-12
16. Urban Water Management Plan.....	II-12
17. Storm Water Facilities Plans.....	II-12
18. Public Facilities Financing Plans	II-12
D. Responsible Agencies	II-13
Chapter III Project Description	III-1
A. Description.....	III-1
1. Background.....	III-1
2. Project Location.....	III-2
3. Project Elements	III-2
B. The Purpose of the Master Environmental Impact Report	III-6
1. California Environmental Quality Act Requirements.....	III-7
2. Modesto's Master Environmental Impact Report.....	III-7
C. Project Objectives	III-7
1. Objectives of the Master Environmental Impact Report Update.....	III-8
D. Modesto Urban Area General Plan.....	III-9
E. Description of the Master Environmental Impact Report.....	III-9
Chapter IV Environmental Setting.....	IV-1
A. Regional Setting.....	IV-1
B. Local Setting	IV-1
C. Relationship to Regional and Local Plans	IV-2
1. Stanislaus County.....	IV-2
2. Stanislaus County Local Agency Formation Commission	IV-2
3. City of Ceres	IV-3
4. City of Riverbank.....	IV-3

5. San Joaquin Valley Air Pollution Control District	IV-3
6. Stanislaus Council of Governments.....	IV-3
D. Other Regulatory Agencies.....	IV-4
1. State Agencies.....	IV-4
2. Federal Agencies.....	IV-6
Chapter V Environmental Analysis	V-1-1
Section 1 Traffic and Circulation.....	V-1-1
A. Environmental Setting	V-1-1
1. Study Area for Direct Impacts	V-1-1
2. Study Area for Cumulative Impacts	V-1-1
3. Existing Physical Conditions in the Study Area	V-1-1
B. Consideration and Discussion of Significant Environmental Impacts	V-1-25
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-1-25
2. Thresholds of Significance Adopted by the City of Modesto.....	V-1-26
3. Significant Direct Impacts	V-1-26
4. Significant Cumulative Impacts.....	V-1-32
5. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-1-34
C. Mitigation Measures Adopted to Minimize Significant Effects.....	V-1-34
1. Measures Which Mitigate Direct Impacts	V-1-34
2. Measures Which Mitigate Cumulative Impacts.....	V-1-35
3. Alternatives to the Proposed Project.....	V-1-35
D. Monitoring These Mitigation Measures.....	V-1-35
E. Evaluating Subsequent Projects.....	V-1-35
F. Keeping the Master Environmental Impact Report Current for This Topic	V-1-36
Section 2 Degradation of Air Quality	V-2-1
A. Environmental Setting	V-2-1
1. Study Area for Direct Impacts	V-2-1
2. Study Area for Cumulative Impacts	V-2-1
3. Existing Physical Conditions in the Study Area	V-2-1

4. Existing Regulatory Setting in the Study Area	V-2-9
5. Policies Which Avoid Impacts.....	V-2-23
B. Consideration and Discussion of Significant Environmental Impacts	V-2-24
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-2-24
2. Thresholds of Significance Suggested by the San Joaquin Valley Air Pollution Control District.....	V-2-24
3. Threshold of Significance Used by the City of Modesto.....	V-2-25
4. Significant Direct Impacts	V-2-25
5. Significant Cumulative Impacts.....	V-2-26
6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis	V-2-27
C. Mitigation Measures Adopted to Minimize Significant Effects	V-2-27
1. Measures Which Mitigate Direct Impacts	V-2-27
2. Measures Which Mitigate Cumulative Impacts.....	V-2-27
3. Alternatives to the Proposed Project.....	V-2-28
D. Monitoring Mitigation Measures	V-2-28
E. Evaluating Subsequent Projects	V-2-28
F. Keeping the Master Environmental Impact Report Current for This Topic	V-2-28
Section 3 Generation of Noise.....	V-3-1
A. Environmental Setting	V-3-1
1. Study Area for Direct Impacts	V-3-1
2. Study Area for Cumulative Impacts	V-3-1
3. Terminology.....	V-3-1
4. Existing Physical Setting in the Study Area	V-3-2
5. Existing Regulatory Setting in the Study Area	V-3-9
6. Policies Which Avoid Impacts.....	V-3-16
B. Consideration and Discussion of Significant Environmental Impacts	V-3-17
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-3-17
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-3-17
3. Threshold of Significance Adopted by the City of Modesto	V-3-17

4. Significant Direct Impacts	V-3-18
5. Significant Cumulative Impacts.....	V-3-21
6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis	V-3-22
C. Mitigation Measures Adopted to Minimize Significant Effects	V-3-22
1. Measures Which Mitigate Direct Impacts	V-3-22
2. Measures Which Mitigate Cumulative Impacts.....	V-3-22
3. Alternatives to the Proposed Project.....	V-3-22
D. Monitoring These Mitigation Measures.....	V-3-22
E. Evaluating Subsequent Projects	V-3-23
F. Keeping the Master Environmental Impact Report Current for This Topic	V-3-23
Section 4 Effects on Agricultural Lands.....	V-4-1
A. Environmental Setting	V-4-1
1. Study Area for Direct Impacts	V-4-1
2. Study Area for Cumulative Impacts	V-4-1
3. Existing Physical Conditions in the Study Areas	V-4-1
4. Existing Policies Applying to the Study Area	V-4-4
5. Policies Which Avoid Impacts.....	V-4-9
B. Consideration and Discussion of Significant Environmental Impacts	V-4-9
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-4-9
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-4-10
3. Thresholds of Significance Adopted by the City of Modesto.....	V-4-10
4. Significant Direct Impacts	V-4-10
5. Significant Cumulative Impacts.....	V-4-11
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-4-11
C. Mitigation Measures Adopted to Minimize Significant Effects	V-4-11
1. Measures Which Mitigate Direct Impacts	V-4-11
2. Measures Which Mitigate Cumulative Impacts.....	V-4-12
3. Alternatives to the Proposed Project.....	V-4-12
D. Monitoring These Mitigation Measures.....	V-4-12

E. Evaluating Subsequent Projects	V-4-12
F. Keeping the Master Environmental Impact Report Current for This Topic	V-4-13
Section 5 Increased Demand for Long-Term Water Supplies	V-5-1
A. Environmental Setting	V-5-1
1. Study Area for Direct Impacts	V-5-1
2. Study Area for Cumulative Impacts	V-5-1
3. Existing Physical Conditions in the Study Area	V-5-1
4. Existing Policies Applying to the Study Area	V-5-6
5. Policies Which Avoid Impacts.....	V-5-11
B. Consideration and Discussion of Significant Environmental Impacts	V-5-12
1. Thresholds of Significance Suggested by CEQA	V-5-12
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-5-12
3. Thresholds of Significance Adopted by the City of Modesto.....	V-5-12
4. Significant Direct Impacts	V-5-12
5. Significant Cumulative Impacts.....	V-5-13
6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis	V-5-14
C. Mitigation Measures Adopted to Minimize Significant Effects	V-5-15
1. Measures Which Mitigate Direct Impacts	V-5-15
2. Measures Which Mitigate Cumulative Impacts.....	V-5-15
3. Alternatives to the Proposed Project.....	V-5-15
D. Monitoring These Mitigation Measures.....	V-5-15
E. Evaluating Subsequent Projects	V-5-15
F. Keeping the Master Environmental Impact Report Current for This Topic	V-5-16
Section 6 Increased Demand for Sanitary Sewer Services	V-6-1
A. Environmental Setting	V-6-1
1. Study Area for Direct Impacts	V-6-1
2. Study Area for Cumulative Impacts	V-6-1
3. Existing Physical Conditions in the Study Area	V-6-1
4. Existing Policies Applying to the Study Area	V-6-2

5. Regulatory Policies Which Avoid Impacts.....	V-6-7
B. Consideration and Discussion of Significant Environmental Impacts	V-6-7
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-6-7
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-6-7
3. Thresholds of Significance Adopted by the City of Modesto.....	V-6-8
4. Significant Direct Impacts	V-6-8
5. Significant Cumulative Impacts.....	V-6-10
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-6-10
C. Mitigation Measures Adopted to Minimize Significant Effects	V-6-10
1. Measures Which Mitigate Direct Impacts	V-6-10
2. Measures Which Mitigate Cumulative Impacts.....	V-6-11
3. Alternatives to the Proposed Project.....	V-6-11
D. Monitoring These Mitigation Measures.....	V-6-11
E. Evaluating Subsequent Projects	V-6-11
F. Keeping the Master Environmental Impact Report Current for This Topic	V-6-12
Section 7 Loss of Sensitive Wildlife and Plant Habitat.....	V-7-1
A. Environmental Setting	V-7-1
1. Study Area for Direct Impacts	V-7-1
2. Study Area for Cumulative Impacts	V-7-1
3. Existing Physical Conditions in the Study Area	V-7-1
4. Existing Regulatory Policies Applying to the Study Area.....	V-7-18
5. Policies Which Avoid Impacts.....	V-7-24
B. Consideration and Discussion of Significant Environmental Impacts	V-7-25
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-7-25
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-7-26
3. Thresholds of Significance Adopted by the City of Modesto.....	V-7-26
4. Significant Direct Impacts	V-7-26
5. Significant Cumulative Impacts.....	V-7-28

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-7-29
C. Mitigation Measures Adopted to Minimize Significant Effects	V-7-29
1. Measures Which Mitigate Direct Impacts	V-7-29
2. Measures Which Mitigate Cumulative Impacts.....	V-7-29
3. Alternatives to the Proposed Project.....	V-7-30
D. Monitoring These Measures	V-7-30
E. Evaluating Subsequent Projects	V-7-30
F. Keeping the Master Environmental Impact Report Current for This Topic	V-7-31
Section 8 Disturbance of Archaeological/Historical Sites.....	V-8-1
A. Environmental Setting	V-8-1
1. Study Area for Direct Impacts	V-8-1
2. Study Area for Cumulative Impacts	V-8-1
3. Existing Physical Conditions in the Study Area	V-8-1
4. Prehistoric Archaeological Resources	V-8-5
5. Historic Archaeological Resources.....	V-8-6
6. Historic Architectural Resources	V-8-6
7. Native American Resources.....	V-8-7
8. Historic Property Descriptions.....	V-8-7
9. Existing Regulatory Policies Applying to the Study Area.....	V-8-11
10. Policies That Avoid Impacts.....	V-8-19
B. Consideration and Discussion of Significant Environmental Impacts	V-8-20
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-8-20
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-8-20
3. Threshold of Significance Adopted by the City of Modesto	V-8-21
4. Significant Direct Impacts	V-8-22
5. Significant Cumulative Impacts.....	V-8-22
6. Impacts for Which There Is Insufficient Information to Support a Full Analysis.....	V-8-23
C. Mitigation Measures Adopted to Minimize Significant Effects	V-8-23
1. Measures That Mitigate Direct Impacts.....	V-8-23

2. Measures That Mitigate Cumulative Impacts	V-8-24
3. Alternatives to the Proposed Project.....	V-8-24
D. Monitoring These Mitigation Measures.....	V-8-25
E. Evaluating Subsequent Projects	V-8-25
F. Keeping the Master Environmental Impact Report Current	V-8-25
Section 9 Increased Demand for Storm Drainage.....	V-9-1
A. Environmental Setting	V-9-1
1. Study Area for Direct Impacts	V-9-1
2. Study Area for Cumulative Impacts	V-9-1
3. Existing Physical Conditions in the Study Area	V-9-1
4. Existing Policies Applying to the Study Area	V-9-3
5. Policies Which Avoid Impacts.....	V-9-9
B. Consideration and Discussion of Significant Environmental Impacts	V-9-9
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-9-9
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-9-10
3. Thresholds of Significance Adopted by the City of Modesto.....	V-9-10
4. Significant Direct Impacts	V-9-10
5. Significant Cumulative Impacts.....	V-9-11
6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis	V-9-11
C. Mitigation Measures Adopted to Minimize Significant Effects	V-9-11
1. Measures Which Mitigate Direct Impacts	V-9-11
2. Measures Which Mitigate Cumulative Impacts.....	V-9-12
3. Alternatives to the Proposed Project.....	V-9-12
D. Monitoring These Mitigation Measures.....	V-9-12
E. Evaluating Subsequent Projects.....	V-9-12
F. Keeping the Master Environmental Impact Report Current for This Topic	V-9-13
Section 10 Flooding and Water Quality	V-10-1
A. Environmental Setting	V-10-1
1. Study Area for Direct Impacts	V-10-1

2. Study Area for Cumulative Impacts	V-10-1
3. Existing Physical Conditions in the Study Area	V-10-1
4. Existing Policies Applying to the Study Area	V-10-6
5. Policies Which Avoid Impacts.....	V-10-10
B. Consideration and Discussion of Significant Environmental Impacts ..	V-10-10
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-10-11
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-10-11
3. Thresholds of Significance Adopted by the City of Modesto.....	V-10-11
4. Significant Direct Impacts	V-10-12
5. Significant Cumulative Impacts.....	V-10-13
6. Impacts for Which There Is Insufficient Information to Support a Full Analysis.....	V-10-13
C. Mitigation Measures Adopted to Minimize Significant Effects	V-10-13
1. Measures Which Mitigate Direct Impacts	V-10-14
2. Measures Which Mitigate Cumulative Impacts.....	V-10-14
3. Alternatives to the Proposed Project.....	V-10-14
D. Monitoring These Mitigation Measures.....	V-10-14
E. Evaluating Subsequent Projects	V-10-14
F. Keeping the Master Environmental Impact Report Current for This Topic	V-10-15
Section 11 Increased Demand for Parks and Open Space.....	V-11-1
A. Environmental Setting	V-11-1
1. Study Area for Direct Impacts	V-11-1
2. Study Area for Cumulative Impacts	V-11-1
3. Existing Physical Conditions in the Study Areas	V-11-1
4. Existing Policies Applying to the Study Area	V-11-2
5. Policies Which Avoid Impacts.....	V-11-9
B. Consideration and Discussion of Significant Environmental Impacts	V-11-9
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-11-9
2. Thresholds of Significance Adopted by the City of Modesto.....	V-11-10
3. Significant Direct Impacts	V-11-10

4. Significant Cumulative Impacts.....	V-11-11
5. Impacts for Which There Is Insufficient Information to Support a Full Analysis.....	V-11-11
C. Mitigation Measures Adopted to Minimize Significant Effects	V-11-11
1. Measures Which Mitigate Direct Impacts	V-11-11
2. Measures Which Mitigate Cumulative Impacts.....	V-11-12
3. Alternatives to the Proposed Project.....	V-11-12
D. Monitoring These Mitigation Measures.....	V-11-12
E. Evaluating Subsequent Projects.....	V-11-12
F. Keeping the Master Environmental Impact Report Current for This Topic	V-11-12
Section 12 Increased Demand for Schools	V-12-1
A. Environmental Setting	V-12-1
1. Study Area for Direct Impacts	V-12-1
2. Study Area for Cumulative Impacts	V-12-1
3. Existing Physical Conditions in the Study Area	V-12-1
4. Existing Policies Applying to the Study Area	V-12-3
5. Policies Which Avoid Impacts.....	V-12-7
B. Consideration and Discussion of Significant Environmental Impacts	V-12-8
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-12-8
2. Threshold of Significance Suggested by Other Analytical Methods.....	V-12-8
3. Threshold of Significance Adopted by the City of Modesto	V-12-8
4. Alternatives to the Proposed Project.....	V-12-9
5. Significant Direct Impacts	V-12-9
6. Significant Cumulative Impacts.....	V-12-10
7. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-12-10
C. Mitigation Measures Adopted to Minimize Significant Effects	V-12-10
1. Measures Which Mitigate Direct Impacts	V-12-10
2. Measures Which Mitigate Cumulative Impacts.....	V-12-10
3. Alternatives to the Proposed Project.....	V-12-11
D. Monitoring These Mitigation Measures.....	V-12-11

E. Evaluating Subsequent Projects	V-12-11
F. Keeping the Master Environmental Impact Report Current for This Topic	V-12-11
Section 13 Increased Demand for Police Services	V-13-1
A. Environmental Setting	V-13-1
1. Study Area for Direct Impacts	V-13-1
2. Study Area for Cumulative Impacts	V-13-1
3. Existing Physical Conditions in the Study Area	V-13-1
4. Existing Policies Applying to the Study Area	V-13-2
5. Policies Which Avoid Impacts.....	V-13-5
B. Consideration and Discussion of Significant Environmental Impacts	V-13-5
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-13-5
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-13-5
3. Thresholds of Significance Adopted by the City of Modesto.....	V-13-6
4. Significant Direct Impacts	V-13-6
5. Significant Cumulative Impacts.....	V-13-6
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-13-7
C. Mitigation Measures Adopted to Minimize Significant Effects	V-13-7
1. Measures Which Mitigate Direct Impacts	V-13-7
2. Measures Which Mitigate Cumulative Impacts.....	V-13-7
3. Alternatives to the Proposed Plan	V-13-7
D. Monitoring These Mitigation Measures.....	V-13-7
E. Evaluating Subsequent Projects	V-13-7
F. Keeping the Master Environmental Impact Report Current for This Topic	V-13-8
Section 14 Increased Demand for Fire Services	V-14-1
A. Environmental Setting	V-14-1
1. Study Area for Direct Impacts	V-14-1
2. Study Area for Cumulative Impacts	V-14-1
3. Existing Physical Conditions in the Study Area	V-14-1

4. Existing Policies Applying to the Study Area	V-14-3
5. Policies Which Avoid Impacts.....	V-14-6
B. Consideration and Discussion of Significant Environmental Impacts	V-14-7
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-14-7
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-14-7
3. Thresholds of Significance Adopted by the City of Modesto.....	V-14-8
4. Significant Direct Impacts	V-14-8
5. Significant Cumulative Impacts.....	V-14-9
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-14-9
C. Mitigation Measures Adopted to Minimize Significant Effects	V-14-9
1. Measures Which Mitigate Direct Impacts	V-14-10
2. Measures Which Mitigate Cumulative Impacts.....	V-14-10
3. Alternatives to the Proposed Project.....	V-14-10
D. Monitoring These Mitigation Measures.....	V-14-10
E. Evaluating Subsequent Projects.....	V-14-10
F. Keeping the Master Environmental Impact Report Current for This Topic	V-14-11
Section 15 Generation of Solid Waste.....	V-15-1
A. Environmental Setting	V-15-1
1. Study Area for Direct Impacts	V-15-1
2. Study Area for Cumulative Impacts	V-15-1
3. Existing Physical Conditions in the Study Area	V-15-1
4. Existing Policies Applying to the Study Area	V-15-3
5. Policies Which Avoid Impacts.....	V-15-6
B. Consideration and Discussion of Significant Environmental Impacts	V-15-7
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-15-7
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-15-7
3. Threshold of Significance Adopted by the City of Modesto	V-15-7
4. Significant Direct Impacts	V-15-7

5. Significant Cumulative Impacts.....	V-15-8
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-15-9
C. Mitigation Measures Adopted to Minimize Significant Effects	V-15-9
1. Measures Which Mitigate Direct Impacts	V-15-9
2. Measures Which Mitigate Cumulative Impacts.....	V-15-9
3. Alternatives to the Proposed Project.....	V-15-9
D. Monitoring These Mitigation Measures.....	V-15-9
E. Evaluating Subsequent Projects	V-15-10
F. Keeping the Master Environmental Impact Report Current for This Topic	V-15-10
Section 16 Generation of Hazardous Materials.....	V-16-1
A. Environmental Setting	V-16-1
1. Study Area for Direct Impacts	V-16-1
2. Study Area for Cumulative Impacts	V-16-1
3. Existing Physical Conditions in the Study Area	V-16-1
4. Policies Which Avoid Impacts.....	V-16-12
B. Consideration and Discussion of Significant Environmental Impacts ..	V-16-13
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-16-13
2. Threshold of Significance Suggested by Other Analytical Methods.....	V-16-13
3. Threshold of Significance Adopted by the City of Modesto	V-16-13
4. Significant Direct Impacts	V-16-13
5. Significant Cumulative Impacts.....	V-16-14
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-16-14
C. Mitigation Measures Adopted to Minimize Significant Effects	V-16-14
1. Measures Which Mitigate Direct Impacts	V-16-14
2. Measures Which Mitigate Cumulative Impacts.....	V-16-15
3. Alternatives to the Proposed Project.....	V-16-15
D. Monitoring These Mitigation Measures.....	V-16-15
E. Evaluating Subsequent Projects	V-16-15

F. Keeping the Master Environmental Impact Report Current for This Topic	V-16-16
Section 17 Geology, Soils, and Mineral Resources	V-17-1
A. Environmental Setting	V-17-1
1. Study Area for Direct Impacts	V-17-1
2. Study Area for Cumulative Impacts	V-17-1
3. Existing Physical Conditions in the Study Areas	V-17-1
4. Existing Policies Applying to the Study Areas.....	V-17-6
5. Policies Which Avoid Impacts.....	V-17-10
B. Consideration and Discussion of Significant Environmental Impacts ..	V-17-11
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-17-11
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-17-11
3. Thresholds of Significance Adopted by the City of Modesto.....	V-17-12
4. Significant Direct Impacts	V-17-12
5. Significant Cumulative Impacts.....	V-17-14
6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-17-15
C. Mitigation Measures Adopted to Minimize Significant Effects	V-17-15
1. Measures Which Mitigate Cumulative Impacts.....	V-17-15
2. Alternatives to the Proposed Project.....	V-17-15
D. Monitoring These Mitigation Measures.....	V-17-15
E. Evaluating Subsequent Projects.....	V-17-15
F. Keeping the Master Environmental Impact Report Current for This Topic	V-17-16
Section 18 Energy	V-18-1
A. Environmental Setting	V-18-1
1. Study Area for Direct Impacts	V-18-1
2. Study Area for Cumulative Impacts	V-18-1
3. Existing Physical Conditions in the Study Areas	V-18-1
4. Existing Policies Applying to the Study Areas.....	V-18-2
5. Policies Which Avoid Impacts.....	V-18-7

B.	Consideration and Discussion of Significant Environmental Impacts	V-18-7
1.	Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-18-7
2.	Thresholds of Significance Suggested by Other Analytical Methods.....	V-18-7
3.	Thresholds of Significance Approved by the City of Modesto.....	V-18-7
4.	Significant Direct Impacts	V-18-8
5.	Significant Cumulative Impacts.....	V-18-9
6.	Impacts for Which There Is Insufficient Information to Support a Full Analysis.....	V-18-10
C.	Mitigation Measures Adopted to Minimize Significant Effects	V-18-10
1.	Measures Which Mitigate Direct Impacts	V-18-10
2.	Measures Which Mitigate Cumulative Impacts.....	V-18-11
3.	Alternatives to the Proposed Project.....	V-18-11
D.	Monitoring These Mitigation Measures.....	V-18-11
E.	Evaluating Subsequent Projects	V-18-11
F.	Keeping the Master Environmental Impact Report Current	V-18-12
Section 19	Effects on Visual Resources	V-19-1
A.	Environmental Setting	V-19-1
1.	Study Area for Direct Impacts	V-19-1
2.	Study Area for Cumulative Impacts	V-19-1
3.	Existing Physical Conditions in the Study Areas	V-19-1
4.	Existing Policies Applying to the Study Areas.....	V-19-2
5.	Policies Which Avoid Impacts.....	V-19-4
B.	Consideration and Discussion of Significant Environmental Impacts	V-19-4
1.	Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-19-4
2.	Thresholds of Significance Suggested by Other Analytical Methods.....	V-19-5
3.	Thresholds of Significance Adopted by the City of Modesto.....	V-19-5
4.	Significant Direct Impacts	V-19-5
5.	Significant Cumulative Impacts.....	V-19-6

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis	V-19-7
C. Mitigation Measures Adopted to Minimize Significant Effects	V-19-7
1. Measures Which Mitigate Direct Impacts	V-19-7
2. Measures Which Mitigate Cumulative Impacts.....	V-19-7
3. Alternatives to the Proposed Project.....	V-19-8
D. Monitoring These Mitigation Measures.....	V-19-8
E. Evaluating Subsequent Projects.....	V-19-8
F. Keeping the Master Environmental Impact Report Current	V-19-8
Section 20 Land Use and Planning	V-20-1
A. Environmental Setting	V-20-1
1. Study Area for Direct Impacts	V-20-1
2. Study Area for Cumulative Impacts	V-20-1
3. Existing Physical Conditions in the Study Area	V-20-1
4. Existing Policies Applying to the Study Area	V-20-6
B. Consideration and Discussion of Significant Environmental Impacts ..	V-20-18
1. Thresholds of Significance Suggested by the California Environmental Quality Act.....	V-20-18
2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-20-19
3. Thresholds of Significance Adopted by the City of Modesto.....	V-20-19
4. Significant Direct Impacts	V-20-19
5. Significant Cumulative Impacts.....	V-20-20
6. Impacts for Which there Is Insufficient Information to Support a Full Analysis.....	V-20-20
C. Mitigation Measures Adopted to Minimize Significant Effects	V-20-20
1. Measures That Mitigate Direct Impacts.....	V-20-21
2. Measures That Mitigate Cumulative Impacts	V-20-21
3. Alternatives to the Proposed Project.....	V-20-21
D. Monitoring These Mitigation Measures.....	V-20-21
E. Evaluating Subsequent Projects.....	V-20-21
F. Keeping the Master Environmental Impact Report Current for This Topic	V-20-22

Section 21	Climate Change.....	V-21-1
	A. Environmental Setting	V-21-1
	1. Study Area for Direct Impacts	V-21-1
	2. Study Area for Cumulative Impacts	V-21-1
	3. Existing Physical Conditions in the Study Area	V-21-2
	4. Existing Policies Applying to the Study Area	V-21-4
	5. Policies Which Avoid Impacts.....	V-21-10
	B. Consideration and Discussion of Significant Environmental Impacts ..	V-21-10
	1. Thresholds of Significance Suggested by CEQA	V-21-11
	2. Thresholds of Significance Suggested by Other Analytical Methods.....	V-21-11
	3. Thresholds of Significance Approved by the City of Modesto.....	V-21-11
	4. Significant Direct Impacts	V-21-11
	5. Significant Cumulative Impacts.....	V-21-16
	6. Impacts for Which There Is Insufficient Information to Support a Full Analysis.....	V-21-18
	C. Measures Adopted to Minimize Significant Effects.....	V-21-18
	1. Measures Which Mitigate Direct Impacts	V-21-18
	2. Measures Which Mitigate Cumulative Impacts.....	V-21-18
	3. Alternatives to the Proposed Project.....	V-21-18
	D. Monitoring These Mitigation Measures.....	V-21-19
	E. Evaluating Subsequent Projects.....	V-21-19
	F. Keeping The Master Environmental Impact Report Current for This Topic	V-21-19
Chapter VI	Growth-Inducing Impacts.....	VI-1
	A. Purpose.....	VI-1
	B. Modesto Urban Area General Plan.....	VI-1
	1. Designation of Land for Future Residential, Commercial, and Industrial Development.....	VI-2
	2. Improvements to and Extensions of the City's Wastewater Treatment System	VI-2
	3. Extension of Police and Fire Services to Annexed Lands	VI-2
	4. Extension of Water Service to Lands within the Urban Area.....	VI-2

5. Road Improvements	VI-2
6. Multiplier Effect.....	VI-3
C. Growth-Inducing Impact Mitigation.....	VI-3
Chapter VII Irreversible Impacts.....	VII-1
A. Purpose.....	VII-1
B. Irreversible Impacts	VII-1
Chapter VIII Alternatives Analysis	VIII-1
A. Purpose.....	VIII-1
B. Selected Alternatives	VIII-1
1. Alternative 1: No-Project Alternative.....	VIII-1
2. Alternative 2: No Changes to Street Designations	VIII-4
C. Comparison Between the Project and the Alternatives.....	VIII-7
D. Alternatives Considered and Rejected	VIII-9
1. Changes in Land Use	VIII-9
2. Greenhouse Gas Reduction Program	VIII-9
E. Environmentally Superior Alternative.....	VIII-10
Chapter IX Comments on Draft Master EIR and Responses to Comments	IX-1
A. Master Response 1—Fire Protection Districts.....	IX-3
B. Responses to Comment Letter 1—David Warner, San Joaquin Valley Air Pollution Control District.....	IX-6
1. Response to Comment 1-1	IX-6
C. Responses to Comment Letter 2—Kathleen A. Dadey, U.S. Army Corps of Engineers	IX-9
1. Response to Comment 2-1	IX-9
D. Responses to Comment Letter 3—Daniel Kevin, California Public Utilities Commission	IX-12
1. Response to Comment 3-1	IX-12
2. Response to Comment 3-2	IX-13
E. Responses to Comment Letter 4—Stephen Mayotte, Stanislaus Consolidated Fire Protection District.....	IX-16
1. Response to Comment 4-1	IX-16

F. Responses to Comment Letter 5—Tom Dumas, California Department of Transportation.....	IX-19
1. Response to Comment 5-1	IX-19
2. Response to Comment 5-2	IX-19
3. Response to Comment 5-3	IX-19
G. Responses to Comment Letter 6—Ed Padilla.....	IX-24
1. Response to Comment 6-1	IX-24
H. Responses to Comment Letter 7—Celia Aceves, Modesto Irrigation District	IX-28
1. Response to Comment 7-1	IX-28
2. Response to Comment 7-2	IX-28
3. Response to Comment 7-3	IX-29
4. Response to Comment 7-4	IX-29
I. Responses to Comment Letter 8—Marjorie Blom, Stanislaus Local Agency Formation Commission	IX-37
1. Response to Comment 8-1	IX-37
2. Response to Comment 8-2	IX-37
3. Response to Comment 8-3	IX-37
4. Response to Comment 8-4	IX-37
5. Response to Comment 8-5	IX-38
6. Response to Comment 8-6	IX-38
7. Response to Comment 8-7	IX-38
8. Response to Comment 8-8	IX-38
9. Response to Comment 8-9	IX-38
10. Response to Comment 8-10	IX-39
11. Response to Comment 8-11	IX-39
12. Response to Comment 8-12	IX-39
13. Response to Comment 8-13	IX-40
14. Response to Comment 8-14	IX-40
15. Response to Comment 8-15	IX-40
16. Response to Comment 8-16	IX-40
17. Response to Comment 8-17	IX-41
18. Response to Comment 8-18	IX-41

19. Response to Comment 8-19	IX-41
20. Response to Comment 8-20	IX-41
21. Response to Comment 8-21	IX-41
22. Response to Comment 8-22	IX-42
23. Response to Comment 8-23	IX-42
24. Response to Comment 8-24	IX-43
25. Response to Comment 8-25	IX-43
26. Response to Comment 8-26	IX-43
27. Response to Comment 8-27	IX-43
28. Response to Comment 8-28	IX-44
29. Response to Comment 8-29	IX-44
J. Responses to Comment Letter 9—Arie W. Vander Pol, Turlock Irrigation District	IX-47
1. Response to Comment 9-1	IX-47
K. Responses to Comment Letter 10—Dale Skiles, Salida Fire Protection District	IX-55
1. Response to Comment 10-1	IX-55
2. Response to Comment 10-2	IX-55
3. Response to Comment 10-3	IX-55
4. Response to Comment 10-4	IX-55
5. Response to Comment 10-5	IX-56
6. Response to Comment 10-6	IX-56
7. Response to Comment 10-7	IX-56
8. Response to Comment 10-8	IX-57
9. Response to Comment 10-9	IX-57
10. Response to Comment 10-10	IX-57
11. Response to Comment 10-11	IX-57
12. Response to Comment 10-12	IX-57
13. Response to Comment 10-13	IX-58
L. Responses to Comment Letter 11—Joshua Mann, Stanislaus County Airport Land Use Commission	IX-61
1. Response to Comment 11-1	IX-61

M. Responses to Comment Letter 12—Raul Mendez, Stanislaus County Environmental Review Committee	IX-69
1. Response to Comment 12-1	IX-69
2. Response to Comment 12-2	IX-69
3. Response to Comment 12-3	IX-69
4. Response to Comment 12-4	IX-69
5. Response to Comment 12-5	IX-70
6. Response to Comment 12-6	IX-73
7. Response to Comment 12-7	IX-73
8. Response to Comment 12-8	IX-74
9. Response to Comment 12-9	IX-75
10. Response to Comment 12-10	IX-76
11. Response to Comment 12-11	IX-76
12. Response to Comment 12-12	IX-77
13. Response to Comment 12-13	IX-77
14. Response to Comment 12-14	IX-78
15. Response to Comment 12-15	IX-78
N. Responses to Comment Letter 13—William D. Ross, Law Offices of William D. Ross on Behalf of Salida Fire Protection District and Stanislaus Consolidated Fire Protection District.....	IX-89
1. Response to Comment 13-1	IX-89
2. Response to Comment 13-2	IX-89
3. Response to Comment 13-3	IX-89
4. Response to Comment 13-4	IX-89
5. Response to Comment 13-5	IX-89
6. Response to Comment 13-6	IX-91
7. Response to Comment 13-7	IX-93
8. Response to Comment 13-8	IX-93
9. Response to Comment 13-9	IX-94
10. Response to Comment 13-10	IX-94
11. Response to Comment 13-11	IX-98
12. Response to Comment 13-12	IX-98

Chapter X	Citations	X-1
	A. Printed Materials	X-1
	B. Personal Communications	X-11
Appendix A	Traffic Appendix	
Appendix B	Air Quality Technical Information: Carbon Monoxide Modeling	
Appendix C	Air Quality Technical Information: Criteria Pollutants Modeling	
Appendix D	Modesto Wastewater Master Plan Update Draft Environmental Impact Report Executive Summary	
Appendix E	Special-Status Species	
Appendix F	Tuolumne River Regional Park Master Plan Draft Master Environmental Impact Report Executive Summary	
Appendix G	Designated Landmark Preservation Sites and Photographs of Carey & Company Sites	

LIST OF TABLES

Table	Page
I-1	Summary of Project Impacts and Mitigating Policies I-11
I-2	Impacts of the Alternatives Compared to the Proposed Project I-18
V-1-1	Changes in Commute Travel Demand for City Residents..... V-1-4
V-1-2	2000 Census Journey-to-Work Results..... V-1-5
V-1-3	Per-Lane Roadway Segment Capacities V-1-6
V-1-4	Roadway Segments with Existing (2005) Daily Level of Service E or F V-1-7
V-1-5	Dwelling Unit and Employment Density Assumptions by Land Use Designation (2007)..... V-1-26
V-1-6	Changes in Daily Vehicles Mile Traveled and Lane Miles of Roadway— 2005 and 2025..... V-1-28
V-1-7	Daily Roadway Segments with Level of Service E or F V-1-28
V-2-1a	State and Federal Ambient Air Quality Standards..... V-2-7
V-2-1b	Ambient Air Quality Monitoring Data Measured at the Modesto 14th Street Monitoring Station V-2-8
V-2-2	Air Quality Measures Involving Changes to Transportation Infrastructure V-2-14
V-2-3	Air Quality Measures to Reduce Vehicle Use V-2-15
V-2-4	Air Quality Measures Related to Energy Use..... V-2-16
V-2-5	Air Quality Measures Implemented Through the CEQA Review Process..... V-2-18
V-2-6	Air Quality Measures to Reduce Construction Impacts V-2-19
V-2-7	Modeled Plan Area Carbon Monoxide Levels for Existing (2005) and Future Conditions (2025) V-2-26
V-2-8	Criteria Pollutant Emissions from Mobile Sources (tons per year) V-2-26
V-3-1	Results of Sound Monitoring..... V-3-5
V-3-2	Summary of Noise Modeling for Existing Conditions V-3-7
V-3-3	State Land Use Compatibility Standards for Community Noise Environment V-3-11

V-3-4	County of Stanislaus Noise Element Standards.....	V-3-12
V-3-5	Noise Contour Development Assumptions.....	V-3-16
V-3-6	Summary of Noise Modeling for Future Proposed Project Conditions.....	V-3-19
V-7-1	Policies For Sensitive Biological Habitats.....	V-7-22
V-8-1	Procedures for Mitigating and Monitoring Impacts on Cultural Resources	V-8-23
V-9-1	Requirements for Drainage Plans	V-9-6
V-9-2	Examples of Best Management Practices	V-9-7
V-9-3	Design Criteria for Sediment Control Basins	V-9-7
V-9-4	Measures That Can Be Incorporated into an SWMP	V-9-8
V-14-1	Fire Protection Districts	V-14-2
V-17-1	Maximum Credible Earthquake and UBC Seismic Source Type for Principal Active Faults in the Region Surrounding Planning Area.....	V-17-6
VIII-1	Impact Comparison between the Project and Alternatives	VIII-7
IX-1	Comments Received on Draft Master EIR	IX-2
IX-2	Year 2030 Project vs. No Project Comparison for the Project Area	IX-72
IX-3	Year 2035 LOS Results on Hammett Road Assuming Eight-Lane Class A Expressway	IX-72

LIST OF FIGURES

Figure	Follows Page
II-1 Growth Strategy Diagram	II-4
III-1 Project Vicinity	III-2
III-2 City of Modesto Planning Area	III-2
V-1-1 Year 2005 Existing Roadway Network	V-1-2
V-1-2 Bicycle Master Plan	V-1-4
V-1-3a Year 2005 PM Peak Hour Roadway Segment Level of Service	V-1-6
V-1-3b Year 2005 Daily Roadway Segment Level of Service	V-1-6
V-1-4a Year 2025 PM Peak Hour Roadway Segment Level of Service	V-1-28
V-1-4b Year 2025 Daily Roadway Segment Level of Service	V-1-28
V-3-1 Haul Routes.....	V-3-4
V-3-2 Noise Contours—Existing and Proposed	V-3-6
V-4-1 Important Farmland within City of Modesto Planning Areas	V-4-4
V-7-1 Riparian and Vernal Pool Locations	V-7-4
V-8-1 Landmark Preservation Sites in the City of Modesto	V-8-8
V-10-1 Flood Potential Diagram	V-10-12
V-11-1 Existing Park System	V-11-2
V-11-2 Park Planning Areas.....	V-11-2
V-17-1 Faults Located within Stanislaus County.....	V-17-6
V-21-1a Average Trip Length, Home-to-Work Trips.....	on page V-21-12
V-21-1b Average Trip Length, Home-to-Shopping Trips	on page V-21-13
V-21-1c Average Trip Length, Home-to-Other Trips.....	on page V-21-13
V-21-1d Average Trip Length, Work-to-Other Trips	on page V-21-14
V-21-1e Average Trip Length, Other-to-Other Trips	on page V-21-14

V-21-2	City of Modesto Number of Trips	on page V-21-15
V-21-3	City of Modesto CO2 Emissions in Metric Tons.....	on page V-21-16

LIST OF ACRONYMS

AASHTO	American Association of State Highway and Transportation Officials
AB	Assembly Bill
ACE	Altamont Commuter Express
ACHP	Advisory Council on Historic Preservation
af	acre-feet
af/y	acre feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
ALUC	Airport Land Use Commission
ARB	California Air Resources Board
ATIS	Advanced Traveler Information Systems
ATMS	Advanced Traffic Management Systems
AVCS	Advanced Vehicle Control Systems
BART	Bay Area Rapid Transit
BMOs	Basin Management Objectives
BMPs	best management practices
BOD	biological oxygen demand
BP	before present
BP	Business Park land-use designation
BRT	bus rapid transit
business plans	hazardous materials release response plans and inventories
C	Commercial land-use designation
CAA	Clean Air Act
CAAA	Clean Air Act Amendments of 1990
CalARP	California Accidental Release Prevention
California EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CCAA	California Clean Air Act of 1988
CCIC	Central California Information Center
CCR	California Code of Regulations
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDPH	California Department of Public Health
CEC	California Energy Commission
Central Valley RWQCB	Central Valley Regional Water Quality Control Board
CEQA	California Environmental Quality Act
CERCDC	California Energy Resources Conservation and Development Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CESA	California Endangered Species Act
CFR	Code of Federal Regulations

cfs	cubic feet per second
CGC	California Government Code
CH ₄	methane
CHSC	California Health and Safety Code
CIP	City's Capital Improvement Program
City	City of Modesto
CIWMB	California Integrated Waste Management Board
CMP	congestion management program
CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CoIWMP	county integrated waste management plan
Corps	U.S. Army Corps of Engineers
County	Stanislaus County
County General Plan	<i>Stanislaus County General Plan</i>
CPD	Comprehensive Planning District
CPTED	Crime Prevention Through Environmental Design
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSMP	Comprehensive Stormwater Management Program
CTR	California Toxics Rule
CVO	Commercial Vehicle Operation
CWA	Clean Water Act
cy	cubic yards
dB	Decibel
dBA	A-Weighted Decibel
DBCP	dibromochloropropane
DFG	California Department of Fish and Game
DHS	California Department of Health Services
DOC	California Department of Conservation
DOF	California Department of Finance
DPH	Department of Public Health
DSWAP	Drinking Source Water Assessment Program
DTSC	Department of Toxic Substances Control
du/net acre	dwelling units per net acre
DWR	California Department of Water Resources
EDB	Ethylene dibromide
EFH	essential fish habitat
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act

FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FMP	facilities master plan
FPD	Fire Protection District
FTIP	Federal Transportation Improvement Program
GAC	granular activated charcoal
GHGs	greenhouse gases
GPAs	General Plan Amendments
gwh	gigawatt-hours
HCFCs	halogenated fluorocarbons
HCP	habitat conservation plan
HFCs	hydrofluorocarbons
HUD	Housing and Urban Development
HWCA	Hazardous Waste Control Act
I	Industrial land-use designation
I-5	Interstate 5
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ISO	Insurance Service Office
ITS	Intelligent Transportation Systems
IWMP	integrated waste management plan
JPA	joint powers authority
kwh	kilowatt-hours
LAFCo	Local Agency Formation Commission
LAX	Los Angeles International Airport
L_{dn}	day-night sound level
L_{eq}	equivalent sound level
LESA	Land Evaluation and Site Assessment
LID	Low Impact Development
L_{min} and L_{max}	minimum and maximum sound levels
LOS	level of service
L_{xx}	Exceedance Sound Level
MAC	Municipal Advisory Council
Master EIR	master environmental impact report
MAX	Modesto Area Express

MBTA	Federal Migratory Bird Treaty Act
MCLs	Maximum Contaminant Levels
mgd	million gallons per day
MID	Modesto Irrigation District
MLD	Most Likely Descendent
MNDs	Mitigated Negative Declarations
MOA	Memorandum of Agreement
MOE	measures of effectiveness
mph	miles per hour
MRWTP	Modesto Regional Water Treatment Plant
MRZs	Mineral Resource Zones
MS4	Municipal Separate Storm Sewer Systems
MSR	municipal services review
MTBE	methyl tertiary butyl ether
MU	Mixed-Use land use designation
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAG	Noise Assessment Guidelines
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOP	notice of preparation
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	ozone
OES	California Office of Emergency Services
OPR	Office of Planning and Research
OS	Open Space designation
PCAs	possible contaminating activities
PCE	tetrachloroethylene
pCi/l	picoCuries per liter
PDIS	Peak Discharge Impact Study
PFCs	perfluorinated carbons
PG&E	Pacific Gas & Electric Company
PLATO	planning law analysis and test organizer
PM ₁₀	particulate matter 10 microns or less in diameter
PM _{2.5}	particulate matter 2.5 microns or less in diameter
POD	Pedestrian-oriented design

Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppm	parts per million
PRC	Public Resources Code
Priority 1P	crimes in progress
proposed project	UAGP Amendment
R	Residential land-use designation
RAP	remedial action plan
RC	Regional Commercial land-use designation
RCRA	Resource Conservation and Recovery Act
Reclamation	State Board of Reclamation
REMOVE	Reduce Motor Vehicle Emissions
ROGs	reactive organic gases
RPD	Redevelopment Planning District designation
RTIP	regional transportation improvement program
RTP	regional transportation plan
RTPA	regional transportation planning agency
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendment and Reauthorization Act
SB	Senate Bill
SCP	Salida Community Plan designation
SDWA	Safe Drinking Water Act
Secretary	Secretary of the California Environmental Protection Agency
SHPO	State Historic Preservation Officer
SIPs	State Implementation Plans
SJV	San Joaquin Valley
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARA	Surface Mining and Reclamation Act of 1975
SO ₂	sulfur dioxide
SO _x	sulfur oxide
SPCC	spill prevention, control and countermeasure
SPRR	Southern Pacific Railroad
SR	State Route
SRRE	source reduction and recycling element
SRRF	Stanislaus Resource Recovery Facility
StanCOG	Stanislaus Council of Governments
StaRT	Stanislaus Regional Transit
STIP	State Transportation Improvement Program
SWMP	stormwater management program
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
SWSP	Surface Water Supply Project
TACs	toxic air contaminants

TAZs	traffic analysis zones
TCE	trichloroethylene
TCM	transportation control measure
TDM	Transportation Demand Management
TID	Turlock Irrigation District
TMDL	Total Maximum Daily Load
TPPG	Transportation Planning Partnership Group
TPPG Model	TPPG countywide travel demand model
TRRP	Tuolumne River Regional Park
TRRP Master Plan	<i>Tuolumne River Regional Park Master Plan</i>
UAGP	<i>City of Modesto Urban Area General Plan</i>
UBC	Uniform Building Code
UIC	Underground Injection Control
UMWP	<i>Urban Water Management Plan</i>
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USTs	underground storage tanks
UWMP	<i>2005 Joint Urban Water Management Plan</i>
v/c	vehicle/capacity
VB	Village Residential with Business Park
VELB	valley elderberry longhorn beetle
VMT	vehicle miles of travel
VHT	vehicle hours of travel
VHD	vehicle hours of delay
VR	Village Residential land-use designation
WDRs	waste discharge requirements
Williamson Act	California Land Conservation Act of 1965
WPP	Wellhead Protection Program
WSA	Water Supply Assessment
WWCS	Wastewater Collection System
µg/l	micrograms per liter
µg/m ³	per cubic meter

Chapter I

Executive Summary

A. INTRODUCTION

The City of Modesto is located in Stanislaus County (County) in the northern San Joaquin Valley. Modesto adjoins Highway 99, the main north-south freeway on the eastern side of the Valley. The City adjoins the Tuolumne River and Dry Creek.

This summary provides information about the master environmental impact report (Master EIR) as well as the impact mitigating policies and alternatives discussed in the Master EIR. The Final Master EIR (consisting of final and draft Master EIRs under separate cover) was certified by the Modesto City Council on October 14, 2008.

Final Master EIR

The document you are reading combines under a single cover the final Master EIR and the draft Master EIR certified by the City in October 2008. The comments and responses section from the final Master EIR are found in Chapter IX of this document. The revisions made to the draft Master EIR and included as errata in the Final Master EIR have been integrated directly into the text of this document. In this way, these two documents have been combined into a single Final Master EIR document. This simplifies the future use of the Master EIR as a reference and as a base California Environmental Quality Act (CEQA) document, pursuant to CEQA Guidelines Section 15175, et seq.

Since release of the draft Master EIR, the total size of the city has increased by about 0.7 square miles (454 acres) as a result of the Tivoli Specific Plan annexation. The Tivoli Specific Plan was approved and the Environmental Impact Report prepared for that project was certified by the City Council on February 26, 2008. Stanislaus County Local Agency Formation Commission (LAFCo) approved the annexation on June 25, 2008. The Final Master EIR has been revised to reflect the size of the city, with the Tivoli expansion. This is a housekeeping change and does not affect the analysis or conclusions contained in the Master EIR.

B. PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

This document is a Master EIR that examines the environmental effects of the *City of Modesto Urban Area General Plan* (UAGP). As provided under the CEQA Guidelines, a Master EIR is intended to streamline the analyses of individual projects proposed after adoption of and included under the parameters of the General Plan by allowing the “statement of overriding considerations” and mitigating policies adopted for the Master EIR to apply to those later projects. The Master EIR in turn relieves the need to analyze cumulative and growth-inducing impacts of subsequent individual projects, a need which could result in a costlier and more time-consuming CEQA process.

An initial study/finding of conformance will be prepared for later projects to document that they are within the scope of the Master EIR or to determine whether additional environmental documentation will

be needed as a result of new, project-specific environmental effects. The Master EIR will be the foundation for “Focused EIRs” and mitigated negative declarations prepared for later projects that would have project-specific significant effects not analyzed in the Master EIR or that would require new mitigation measures or alternatives.

According to state law, the Master EIR must be updated in conjunction with the General Plan being updated. The Master EIR update is also consistent with provisions of CEQA that require periodic review and update of Master EIRs. The City of Modesto certified its original Master EIR with the adoption of the Urban Area General Plan in 1995, and certified a revised Master EIR with the adoption of an update to the Urban Area General Plan in 2003.

Whereas the 1995 Master EIR analyzed a “Preferred Alternative” of about 467,000 population along with other land use alternatives, the 1995 General Plan adopted by the Modesto City Council was reduced from the Preferred Alternative to a plan area of an estimated 442,000 population. The 2002 General Plan Master EIR Update further refined the analysis of the adopted planning area by applying the estimated persons per household from the 2000 Census (2.86 persons) and factors used in the Traffic Model so that planning area buildout results in an estimated population of approximately 400,000.

In preparation of the General Plan amendment that this Master EIR analyzes, the City has further refined its estimate of the population at buildout of the Urban Area General Plan. Based on reasonable assumptions about land use designations and the rate of growth, the future population within the adopted planning area is estimated to be 428,300. This population level would be reached at some time after the 2025 planning horizon. Current infrastructure plans would accommodate an estimated population between 334,000 and 357,000 people within the City’s existing Sphere of Influence (SOI), expected to occur by approximately 2025. The planning area is larger than the City’s existing SOI.

The current update will revise the Master EIR and incorporate new information, as available. The result is a Master EIR that is easier to apply to everyday decision-making.

C. PROJECT DESCRIPTION

The UAGP was last comprehensively updated in 1995, when the UAGP and a Master EIR were adopted as cohesive planning and environmental mitigation documents. Since 1995, more than 20 UAGP Amendments (GPAs) have been adopted along with updates to the Master EIR. A new Master EIR was prepared for the UAGP in 2002 and adopted in 2003 to address the numerous updates to the UAGP.

The current UAGP Amendment, which is the proposed project for CEQA purposes, responds to changes in federal, state, and local policies that have occurred since the General Plan was adopted by the Modesto City Council in 1995 and amended in 2003. It is not a comprehensive update to the UAGP. No major land use changes are proposed as part of the amendment. The horizon of the UAGP remains 2025. The amendment to the UAGP would extend the useful life of the UAGP until a comprehensive update is completed.

The housing section of the UAGP was updated and certified in 2004. It is not proposed for amendment as part of the amendment of the UAGP. A new traffic model for the Modesto–Stanislaus County region has been prepared. The proposed amendment utilizes the new traffic model and incorporates current utility master plans, as well as past changes to the UAGP in a more comprehensive fashion. Other than

changing the designations of selected roads, no substantial changes are proposed to the General Plan's existing circulation diagram.

Updates to the General Plan fall into three major categories: (1) incorporating as policy those practices that are regularly approved and which effectively have become policy, (2) proposing policies (amendments to the General Plan) to provide direction for anticipated issues, and (3) incorporating adopted policies that are not currently reflected in the General Plan. The following lists identify the proposed updates to the General Plan within these three major categories.

1. Updates to the General Plan

a. Practices to Policies

The General Plan Amendment would incorporate as policies the following practices that are regularly approved and have effectively become policy. These policies have not been the subject of prior environmental review.

- Land use classifications—The descriptions of land use classifications would be updated where necessary and refined to provide better correlation to zoning.
- Sphere-of-influence development—Development that occurs within the sphere of influence, and the relationship between City and County, is addressed in General Plan Amendment.
- Construction of rock wells—Policies would restrict the construction of new rock wells.
- “Potable well water” definition—A definition of “potable well water” would be added to the Urban Area General Plan.

b. Proposed Policies

The General Plan Amendment will include new policies to provide direction for anticipated issues. These policies have not been the subject of prior environmental review.

- Infrastructure financing—Utilities policies would be revised in light of necessary authorities for growth financing. Current pay-as-you-go financing policy would be changed to “up front” infrastructure construction.
- Comprehensive Planning District policies—Policies for the implementation of Comprehensive Planning Districts (CPDs) would be expanded to better guide future specific plans and development with respect to land use policies, public facilities, and infrastructure planning.
- Air quality element—Data, analysis, goals, policies, and implementation strategies of the air quality section would be revised pursuant to AB 170, “Air Quality Element: San Joaquin Valley” (codified in Section 65302.1 of the Government Code), which requires each city and county in the San Joaquin Valley Air Pollution Control District to amend its general plan (either through existing elements or by adding an air quality element) to include analyses, goals, policies, and implementation strategies to improve air quality in the region.

- Greenhouse gas/global climate change policies—New policies would be adopted for the purpose of supporting the State goal of reducing greenhouse gas production to 1990 levels by 2020.
- Annexation policies—Current annexation policies would be revised to reflect the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 and Stanislaus County Local Agency Formation Commission procedures.
- Minimum specific plan size—The proposed amendment addresses a minimum specific plan size.
- Dry Creek and Tuolumne River CPDs—Development in the Dry Creek and Tuolumne River CPDs would be addressed in the proposed amendment.
- Biological and archaeological resource study areas—The proposed amendment would revise the boundaries to better reflect biologically and archaeologically sensitive areas.
- Provision of sewer and water service within the sphere of influence—The proposed amendment addresses the provision of sewer and water service within the City's sphere of influence.
- Development in the 100-year floodplain—The proposed amendment addresses development within the 100-year floodplain and incorporates the most recent Flood Insurance Rate Map information.
- Archaeological and cultural resources—Policy updates related to archaeological, cultural, and historic resources would be made based on state law, including State CEQA Guidelines Section 15064.5. The planning process would include required consultations with Native American tribes pursuant to Senate Bill 18. General policies regarding paleontological resources would be included to reflect the potential for encountering resources.
- Separate sewer and water connections—Separate sewer and water connections for each dwelling unit are addressed in the proposed amendment.
- Public infrastructure in private developments—The proposed amendment would define public infrastructure in private developments.
- Police staffing goal—The proposed amendment establishes a police staffing goal of 1.85 sworn officers per 1,000 citizens.
- Fire department response times—The proposed amendment establishes Modesto Fire Department response time standards.
- Timing of street frontage improvements for minor annexations—The proposed amendment would address the timing of frontage improvements for minor annexations of County islands.
- The Metropolitan Transportation Commission's Regional Rail Plan—The proposed amendment integrates pertinent information from the Metropolitan Transportation Commission's Regional Rail Plan Revised Draft Report.

Redevelopment Plan Amendment—A minor amendment to include the Redevelopment Master Plan's Land Use Strategy Map in the Redevelopment Plan has been included to ensure consistency between the Urban Area General Plan, the Redevelopment Master Plan, and the Redevelopment Plan.

Utilities/infrastructure—Utility policies are updated to reflect utility constraints and coordinate with the imminent updates of the Storm Water Master Plan, and the Water Master Plan anticipated to be completed in 2008.

- Road system changes—In addition to traffic policy revisions, the following are known needed changes to the road network.
 - ❑ Dale Road—A change from a minor arterial to a principal arterial in the entire General Plan area and a change from four lanes with the possibility of bike lanes to six lanes with no bike lanes.
 - ❑ Bangs Avenue—A change from a minor collector to a major collector with bike path from Dale Road to Tully Road and a change from two travel lanes to four travel lanes with bike lanes.
 - ❑ Claratina Expressway—Revision of the alignment, and a change from a four-lane expressway to a six-lane principal arterial east of Oakdale Road to Roselle Avenue, which allows for four travel lanes and Class I bicycle facilities.
 - ❑ Carpenter Road—A change from a six-lane expressway to a principal arterial with bike lanes from State Route 132 to Whitmore Avenue and a change from six lanes without bike lanes to six lanes with bike lanes.
 - ❑ Claus Road—Moving the alignment of Claus Road from Floyd Avenue to Claratina Avenue west of the Burlington Northern Santa Fe Railroad tracks.
 - ❑ Sylvan Avenue—A change from principal arterial to minor arterial with Class II bicycle facilities from Oakdale Road to Roselle Avenue.
- Mitigation in the Master EIR—Mitigation arising in the Master EIR is included in the proposed amendment as policies.

c. Include Adopted Policies

The GPA will incorporate the following already-adopted policies in the UAGP. These policies have been the subject of prior environmental review, as part of their adoption processes.

- Specific plan implementation—Policy language that describes the elements of the comprehensive planning process and policies supporting and referencing the specific plan preparation guidelines adopted on October 5, 2004, is included in the proposed amendment.
- Urban design—The amendment includes adopted policies that will support the preparation of design guidance documents, such as the *Guidelines for Small Lot Single-Family Residential Development*. The recently adopted *Guidelines for Commercial and Industrial Development* are incorporated into the proposed amendment by reference.
- Utilities/infrastructure—Utility policies are updated to reflect utility constraints and coordinate with the recently updated *Wastewater Master Plan* and the adopted *Joint Urban Water Management Plan* (May 2007).
- Roundabout Policy—The amendment incorporates the adopted City Roundabout Policy (dated September 2004) by reference.

- 1991 and 1998 traffic study criteria—The amendment incorporates the adopted 1991 and 1998 traffic study criteria.
- Expressway access policy—The proposed amendment incorporates the adopted expressway access policy that regulates and limits the number and design of expressway access locations in order to ensure the overall operational viability of expressways in the community.
- Stormwater—The proposed amendment includes water quality and watershed protection principles that have been incorporated into the storm-drainage section of the General Plan consistent with the City’s National Pollutant Discharge Elimination System permit, stormwater pollution prevention plan, and new guidelines.
- Dual-use park-basin policy—The dual-use park-basin policy (adopted December 12, 2000) is incorporated by reference into the proposed amendment.
- “Nonconforming” parks—The definition of the policy (adopted in June 2005) to sell “nonconforming” parks is included in the proposed amendment.
- Long Range Transit Plan—The Long Range Transit Plan for the City of Modesto (adopted in August 2000) is incorporated by reference into the proposed amendment.
- Hazard Mitigation Plan—The proposed amendment will incorporate by reference the Hazard Mitigation Plan, adopted September 2005.
- City of Modesto 2001–2004 Strategic Plan—Appropriate objectives and policies from the adopted City of Modesto 2001–2004 Strategic Plan will be incorporated into the proposed amendment.
- Measure M (Citizens’ Advisory Growth Management Act of 1995)—The adopted Measure M policy will be incorporated into the proposed amendment by reference.
- Reasonable certainty policy—The proposed amendment will incorporate the adopted reasonable-certainty policy adopted in May 2006, which requires that adequate wastewater treatment and disposal capacity can be provided for the annexed area; and the adopted 10% risk policy, which addresses the risk of violating the City’s permit to discharge wastewater effluent to the San Joaquin River.
- Crime Prevention Through Environmental Design policies—Crime Prevention Through Environmental Design (CPTED) policies will be incorporated into the proposed amendment by reference.
- Kaiser Medical Center—Policies adopted in association with the approval of Kaiser Medical Center, (August 10, 2004) will be incorporated into the proposed amendment by reference.
- General Plan Amendments—GPAs adopted since the 2003 General Plan, as well as those currently in progress, will be incorporated into the proposed amendment. Adopted GPAs have previously undergone environmental review.
 - GPA 03-002: Housing Element Update—adopted by Modesto City Council Resolution No. 2004-233 (April 27, 2004).
 - GPA 04-002: Regional Commercial to Residential, Coffee/Claratina—adopted by Modesto City Council Resolution No. 2005-70 (January 25, 2005).

- GPA 06-002: Added “Principal Arterial with Bike Lanes” as a Classification to the General Plan and Adopted the Non-Motorized Transportation Master Plan—adopted by Modesto City Council Resolution No. 2007-065 (January 9, 2007).

2. Objectives

The primary purposes of the proposed project (i.e., the UAGP amendment) are to incorporate adopted policies into the General Plan, codify regular practices as policies, update policies to reflect current state and federal laws, and update the 2003 Master EIR to allow subsequent projects to rely upon its environmental analysis.

The objectives of the proposed project include:

- incorporating pertinent guidance from the City’s adopted *2001–2004 Strategic Plan*;
- amending the General Plan to reflect pertinent new information and statutory changes that have occurred since 1995;
- amending the General Plan to reflect Modesto policy changes that have occurred since 2003;
- amending the General Plan without resulting in any substantial changes to the City’s land use diagram or increases in development potential;
- incorporating information from the new traffic model into the General Plan, as appropriate;
- incorporating information from the most recent sewer, water, and storm drainage master plans into the General Plan;
- evaluating infrastructure master plans against current policies to determine how existing policies may need to be revised; and
- providing a “maintenance update” of the General Plan that will provide an adequate document pending a comprehensive overhaul in the future.

3. Description of the Urban Area General Plan

The Modesto Urban Area General Plan comprises the goals and policies that will guide City land use decisions between 2007 and 2025. The Plan establishes three policy areas: the Redevelopment Area, where significant levels of new development are expected to occur in accordance with the Redevelopment Plan; the Baseline Developed Area, which encompasses the City as it exists in 2007 and which is not expected to grow substantially; and the Planned Urbanizing Area, which is expected to accommodate most of the City’s future growth, in accordance with Comprehensive Plans adopted in advance of new development. The overall planning area contained in the General Plan extends beyond the City’s current corporate limits and its current sphere of influence. The planning area generally describes the lands that could be urbanized by 2025.

4. Areas of Known Controversy

The environmental analyses of the Modesto Urban Area General Plan, as amended by this proposal, indicate the following resources/issues are controversial due to associated potential impacts:

a. Degradation of Air Quality

Air quality in the project area and the San Joaquin Valley will be degraded as a result of the growth identified in the General Plan. The amount of pollutants and particulate levels will increase, chiefly through automobile-generated pollutants and grading activities, but pollutants carried in from elsewhere will continue to be a contributing cause of air pollution problems.

b. Contribution to Global Climate Change

The UAGP establishes various CPDs which, taken individually and collectively, create a land use pattern which encourages behavior that results in marginally less greenhouse gas (GHG) emissions when compared to traditional development patterns. However, the Planned Urbanizing Area is larger than the City's Baseline Developed Area and Redevelopment Area, and its development will result in a substantial increase in energy use and vehicle miles traveled (VMT) relative to the relatively low intensity development currently existing in that area.

c. Removal or Degradation of Biologically Sensitive Habitats

The proposed amendment has the potential to affect biologically sensitive areas, including riparian corridors, riverine habitat, fresh emergent wetlands, and grasslands east of the Burlington Northern-Santa Fe Railway that may support vernal pools. Continued development associated with the proposed amendment has the potential to affect these sensitive habitats and special-status species that can occur in these habitats.

d. Degradation of Archaeological or Historical Sites

The continued urbanization of the Planning Area, including the introduction of as many as approximately 357,000 residents by 2025, to a total of approximately 428,000 when the entire General Plan is complete, could affect prehistoric and historic resources. There is a low probability that archaeological resources will be uncovered when soils are excavated. Demolition, removal, or modification of historically significant buildings is possible.

e. Loss of Prime Agricultural Land

The Modesto area is underlain by high quality agricultural soils. Urban development will cover these soils and they will no longer be available for agricultural use.

f. Population growth and sprawl

Modesto is the demographic and commercial hub of Stanislaus County. The proposed project is expected to induce a "multiplier effect," which is the web of impacts resulting from the economic relationships between Modesto and the surrounding region. The extent to which

the multiplier effect induces housing and job growth beyond Modesto's planning area, where that growth may be located, and the intensity of that growth, cannot be quantified at this time. Modesto itself already feels the multiplier effect of economic growth in the San Francisco Bay Area.

g. Worsening automobile traffic

Modesto is on Highway 99, a major north-south corridor, and is home to many people who commute elsewhere to work. The EIR prepared for Stanislaus Council of Government's (StanCOG) 2007 Regional Transportation Plan (RTP) analyzed the potential impacts of the road network improvements identified in the update to the RTP. Significance findings were based on whether the RTP projects would result in an LOS in excess of D in urban areas and C in rural areas of the county. The following cumulative impacts involving traffic were identified: substantial increase in traffic in relation to the existing traffic load and capacity of the street system; violation, either individually or cumulatively, of an LOS standard established by the County Congestion Management Plan for designated roads and highways; and, creation of need for capacity-enhancing alterations to existing facilities. The 2004 Stanislaus Council of Governments Addendum to the 2001 Regional Transportation Plan did not identify additional cumulative impacts.

h. Increased Demands for Water Supplies

As a result of increased population, the project will contribute to a cumulative loss of natural water resources in the San Joaquin Valley and contribute to the need to identify additional water resources. This impact will be at least partially mitigated through conservation measures required by the City, including the increased use of reclaimed water, water conserving devices, and drought-tolerant landscaping. Assuming that radical changes in lifestyle or economic conditions do not occur, water demand will increase and the consumption of water resources is irreversible.

i. Floodplain Management

Since the widespread destruction of property seen from the Hurricane Katrina disaster on the U.S. Gulf Coast, the State of California has been concerned over the potential for development to occur in areas that are subject to flooding. Resulting State legislation enacted in 2006 will require general plans to address 200-year floodplain management along the major waterways in the Central Valley. This issue will be addressed in the City's future comprehensive UAGP amendment when updated 200-year floodplain information is expected to be available from State and other sources.

j. Fire Protection in Annexed Lands

Future annexations under the UAGP may adversely affect the economic viability of fire protection districts, should those districts lose crucial levels of property tax revenues. Should

these districts be unable to provide full fire protection services to unincorporated areas as a result, fire losses would increase in those areas.

k. Global Climate Change

Global climate change is being caused by greenhouse gas emissions from the burning of fossil fuels. Increases in vehicle miles travelled, energy use, and water use are indicators of increased greenhouse gas emissions. AB 32 of 2005 established a strong state interest in reducing current greenhouse gas emissions to 1990 levels by 2020. This will not be possible without changes in land use policy and activities.

D. SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table I-1 summarizes the project impacts and mitigating policies. These measures will act to mitigate potential environmental effects or to ensure that effects are less than significant. See the individual impact sections in Chapter V for a detailed discussion of impacts, policies in place, and proposed new policies that reduce impacts included in the Master EIR.

1. Alternatives

Alternatives to the proposed project are discussed in detail in Chapter VIII, Alternatives Analysis. Table I-2 summarizes the impacts of the alternatives in comparison to the proposed project.

a. Alternative 1: No Project

The No Project Alternative is the continuation of the currently adopted UAGP into the future. (State CEQA Guidelines Section 15126.6(e)(3)(A)) Thus, the impacts of the proposed general plan amendments would be compared to the impacts that would occur under build-out of the current 1995 UAGP. The impacts of the 1995 General Plan are described in the 2003 Master EIR update.

b. Alternative 2: No Changes to Street Descriptions

Alternative 2 consists of the current street descriptions contained in the 1995 UAGP, along with the policies being proposed under the UAGP update.

2. Other California Environmental Quality Act-Related Conclusions

a. Growth-Inducing Impacts

Potential growth-inducing impacts associated with the proposed UAGP update were identified in analyses of the proposed UAGP update. By definition, a general plan is accommodating future growth in a controlled manner. Growth-inducing activities associated

with Modesto's Urban Area General Plan include designation of land for future residential, commercial, and industrial development; improvements to and extensions of the City's wastewater treatment system; extension of police and fire services to annexed lands; and extension of water service to lands within the urban area road improvements. An additional growth-inducing impact anticipated to result from the proposed UAGP update is the economic multiplier effect.

This effect is moderated and mitigated by the Community Growth Strategy and Comprehensive Planning District policies of the Urban Area General Plan (Chapter II-C and III-D). Development within each of these districts will be timed to coincide with the availability of sewer service and will be required to comply with the individual comprehensive plans that will be adopted for each district.

Table I-1. Summary of Project Impacts and Mitigating Policies

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
Traffic and Circulation	Arterial streets	Increased traffic levels over LOS D will be significant	Proposed UAGP update policies TC-17 through TC-64	Significant and unavoidable
	Cumulative effects relative to the Regional Transportation Plan	Substantial contributions by Modesto are significant	Proposed UAGP update policies TC-17 through TC-64	Significant and unavoidable contribution
Air Quality	Effect of general plan traffic conditions on ambient carbon monoxide levels	Less than significant	Proposed UAGP update policies AQ-1 through AQ-56	Less than significant
	Effect of pollutant emissions from mobile sources	Less than significant	Proposed UAGP update policies AQ-1 through AQ-56	Less than significant
	Cumulative effects relative to air quality	Significant	Proposed UAGP update policies AQ-1 through AQ-56	Significant and unavoidable contribution
Generation of Noise	Increased noise levels for future conditions in plan area	Significant	Proposed UAGP update policies N-1 through N-14	Less than significant
	Increase airport operations beyond 2015	Significant and unavoidable	Proposed UAGP update policies N-1 through N-14	Significant and unavoidable
	Cumulative effects of increased noise levels	Significant	Proposed UAGP update policies N-1 through N-14	Significant and unavoidable contribution
Effects on Agricultural Lands	Agricultural conflicts in the Baseline Developed and Redevelopment Areas	Less than significant	Proposed UAGP update policy AL-15	Less than significant
	Agricultural conflicts in the Planned Urbanizing Area	Significant	Proposed UAGP update policies AL-16 through AL-21 and LAFCo policy AL-1	Significant and unavoidable

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
	Cumulative impacts on agricultural lands	Significant	Proposed UAGP update policies AL-15 through AL-21	Significant and unavoidable contribution
Increased Demand for Long-term Water Supplies	Impacts on Baseline Developed Area, Planned Urbanizing Area, and Redevelopment Area	Less than significant	Proposed UAGP update policies WS-10 through WS-37	Less than significant
	Impacts on water distribution facilities	Less than significant	Proposed UAGP update policies WS-10 through WS-37	Less than significant
	Cumulative impacts on increased demand for long-term water supply	Significant	Adopted policies of Stanislaus LAFCo, the Stanislaus County General Plan, and proposed UAGP policies WS-10 through WS-37	Less than significant contribution; significant and unavoidable during drought years by 2020
Increased Demand for Sanitary Sewer Services	Compliance with waste discharge requirements	Less than significant	Proposed UAGP update policies SS-4 through SS-28	Less than significant
	Impacts from the construction of new wastewater treatment facilities	Addressed in the Wastewater Master Plan Master EIR	Mitigation measures have been implemented by the City under the Wastewater Master Plan	Addressed in the Wastewater Master Plan Master EIR
	Insufficient capacity to meet the Project's projected demand	Less than significant	None required	Less than significant
	Cumulative impacts on demand for sanitary sewer services	Less than significant (same as direct impacts)	Proposed UAGP update policies SS-4 through SS-28 and mitigation measures implemented by the City under the Wastewater Master Plan	Less than significant
Loss of Sensitive Wildlife and Plant Habitat	Impacts within the Baseline Development and Redevelopment Areas	Less than significant	UAGP update policy SWPH-12	Less than significant

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
	Impacts on valley foothill riparian, riverine, and fresh emergent wetland habitat in the Planned Urbanizing Area	Significant	Proposed UAGP update policies, measures in the TRRP Master Plan and Master EIR, and other regulations that will apply to future development (i.e., the Clean Water Act, the California Fish and Game Code, the Endangered Species Act, and the California Endangered Species Act)	Less than significant
	Impacts on vernal pool habitat in the Planned Urbanizing Area	Significant	UAGP update policy SWPH-16	Less than significant
	Cumulative impacts on loss of sensitive wildlife and plant habitat	Significant	Proposed UAGP update policies, measures in the TRRP Master Plan and Master EIR, and other regulations that will apply to future development (i.e., the Clean Water Act, the California Fish and Game Code, the Endangered Species Act, and the California Endangered Species Act)	Significant and unavoidable contribution
Disturbance of Archaeological/ Historical Sites	Impacts on historical resources within the Baseline Developed Area	Significant	Proposed UAGP update policies AH-3 through AH-17 and City adopted mitigation and monitoring program for cultural resources	Less than significant
	Impacts on archaeological resources within the riparian corridors	Significant	Proposed UAGP update policies AH-3 through AH-17 and City adopted mitigation and monitoring program for cultural resources	Less than significant
	Impacts on archaeological resources outside of riparian corridors	Significant	Proposed UAGP update policies AH-3 through AH-17 and City adopted mitigation and monitoring program for cultural resources	Less than significant
	Modifications of historical structures	Significant	Proposed UAGP update policies AH-3 through AH-17 and City adopted mitigation and monitoring program for cultural resources	Less than significant
	Demolition of a significant historical structure	Significant	None	Significant and unavoidable

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
	Cumulative impacts on historical/archaeological sites	Less than significant	Proposed UAGP update policies AH-3 through AH-17 and City adopted mitigation and monitoring program for cultural resources	Less than significant contribution
Increased Demand for Storm Drainage	Impacts on storm drainage in the Baseline Developed Area and the Planned Urbanizing Area	Significant	Proposed UAGP update policies SD-2 through SD-17	Less than significant
	Cumulative impacts on increased demand for storm drainage	Significant	Proposed UAGP update policies SD-2 through SD-17	Significant and unavoidable contribution
Flooding and Water Quality	Impacts on flooding	Significant	Regulations regarding surface water quality, proposed UAGP update policies FWQ-5 through FWQ-10, City and County floodplain ordinances, Modesto Municipal Code Title 5, Chapter 10, and the City's Guidance Manual for New Development Stormwater Quality Control Measures	Less than significant
	Impacts on surface water quality	Significant	Regulations regarding surface water quality, proposed UAGP update policies FWQ-11 through FWQ-15, City and County floodplain ordinances, Modesto Municipal Code Title 5, Chapter 10, and the City's Guidance Manual for New Development Stormwater Quality Control Measures	Less than significant
	Cumulative impacts on flooding and water quality	Significant	Proposed UAGP update policies FWQ-5 through FWQ-15 and federal requirements (administered by the Central Valley Regional Water Quality Control Board) limiting discharges into surface water would reduce cumulative impacts to less than significant.	Less than significant contribution
Increased Demand for Parks and Open Space	Impacts on parks and open space in Baseline Developed and Redevelopment Areas	Less than significant	None necessary	Less than significant

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
	Impacts on parks and open space in Planned Urbanizing Area	Significant	Proposed UAGP update policies POS-2 through POS-46	Less than significant
	Cumulative impacts on demand for parks and open space	Significant	Proposed UAGP update policies POS-2 through POS-46	Less than significant contribution
Increased Demand for Schools	Increased population will lead to school crowding	Less than significant	Government Code Section 65995 provides that payment of impact fees is full mitigation	Less than significant
	Future school construction will have impacts	Unknown	Future school construction will be subject to CEQA and the responsibility of individual school districts	Unknown
	Cumulative impacts on school crowding	Less than significant	Government Code Section 65995 provides that payment of impact fees is full mitigation	Less than significant contribution
Increased Demand for Police Services	Impacts on police services in the Baseline Developed and Redevelopment Areas	Significant	Proposed UAGP update policies PS-2 through PS-15	Less than significant
	Impacts on police services in the Planned Urbanizing Area	Significant	Proposed UAGP update policies PS-2 through PS-15	Less than significant
	Cumulative impacts on police services	No impact	None necessary	No impact
Increased Demand for Fire Services	Demand on fire services in the Baseline Developed and Redevelopment Areas	Less than significant	Proposed UAGP update policies FS-1 through FS-16	Less than significant
	Demand on fire services in the Planned Urbanizing Area	Less than significant	Proposed UAGP update policies FS-1 through FS-18	Less than significant
	Increased fire risk in areas outside the city limits served by independent fire districts	Significant, if future annexations result in financial insolvency of fire districts	Proposed UAGP update policy FS-18	Less than significant contribution
Generation of Solid Waste	Impacts on solid waste in Baseline Developed, Planned Urbanizing, and Redevelopment Areas	Less than significant	Proposed UAGP update policies SW-8 through SW-16	Less than significant
	Cumulative impact on the generation of solid waste	Less than significant	Proposed UAGP update policies SW-8 through SW-16	Less than significant

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
Generation of Hazardous Materials	Impacts of hazardous materials	Less than significant	Proposed UAGP update policies HM-1 through HM-26	Less than significant
	Release of hazardous materials from the Fink Road Landfill	Less than significant	Operation requirements from the California Integrated Waste Management Board and oversight of discharge permits by Central Valley Regional Water Quality Control Board	Less than significant
	Cumulative impacts on the generation of hazardous materials	significant	Proposed UAGP update policies HM-1 through HM-26	Less than significant contribution
Geology, Soils and Mineral Resources	Impacts related to primary seismic hazards	Less than significant	Proposed UAGP update policies GSM-1 through GSM-6 and GSM-9	Less than significant
	Impacts related to secondary seismic hazards	Less than significant	Proposed UAGP update policy GSM-6	Less than significant
	Impacts related to engineered slope stability	Less than significant	Proposed UAGP update policies GSM-1, GSM-4, GSM-7, and GSM-8	Less than significant
	Impacts related to erosion and sedimentation	Less than significant	None	Less than significant
	Impacts related to topsoil loss	Less than significant	Proposed UAGP update policies GSM-10 and GSM-11	Less than significant
	Impacts related to expansive soils	Significant	Proposed UAGP update policies GSM-1 and GSM-6	Less than significant
	Impacts related to mineral resources	Less than significant	None required	Less than significant
	Cumulative impacts on geology, soils, and mineral resources	Less than significant	Proposed UAGP update policies GSM-1 through GSM-14	Less than significant contribution
Energy	Energy use within the Baseline Developed and Redevelopment Areas	Less than significant	None required	Less than significant
	Energy use within the Planned Urbanizing Area	Significant	Proposed UAGP update policies E-6 through E-42	Significant and unavoidable
	Cumulative energy demand within California	Contributions by Modesto are significant	Proposed UAGP update policies E-6 through E-42	Significant and unavoidable contribution
Effects on Visual Resources	Visual impacts of new development in the Baseline Developed and Redevelopment Areas	Less than significant	None necessary	Less than significant

Resource Section Name	Impact Topic	Impact Level	Policy/Mitigation	Residual Impact Level
	Visual impacts in the Planned Urbanizing Area	Significant	Proposed UAGP update policies VR-2 through VR-10	Less than significant
	Increased light and glare in the Baseline Developed and Redevelopment Areas	Less than significant	None necessary	Less than significant
	Increased light and glare in the Planned Urbanizing Area	Significant	Proposed UAGP update policy VR-3	Significant and unavoidable contribution
Land Use and Planning	Land use conflicts in the Baseline Developed and Redevelopment Areas	Less than significant	None necessary	Less than significant
	Land use conflicts in the Planned Urbanizing Area	Significant	Proposed UAGP update policies LUP-27 through LUP- 63	Less than significant
	Cumulative conflicts between land uses	The proposed UAGP would not contribute	None necessary	Less than significant contribution
Climate Change	Impacts on climate change by development in Baseline Developed and Redevelopment Areas	Less than significant	None necessary	Less than significant
	Impacts on climate change by development in Planned Urbanizing Area	Less than significant	None necessary	Less than significant
	Cumulative impacts on climate change	Significant	Proposed UAGP update policies CL-3 through CL-24	Significant and unavoidable contribution

Table I-2. Impacts of the Alternatives Compared to the Proposed Project

Impact Topic	Proposed UAGP Update	Alternative 1—No-Project Alternative	Alternative 2—No Changes to Street Designations
Traffic and circulation	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable Alternative 2 (would have greater transportation impacts along those roads than the proposed project would. However, it would have less of an impact than Alternative 1 because it would include other new traffic and transportation policies that are expected to increase transit ridership, improve flow through the use of roundabouts, encourage bicycle use and walking, and provide other benefits over current policies.
Degradation of air quality	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable Lower VMT and new air quality policies would result in lesser air quality impacts
Generation of noise	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable New policies and narrower arterials would result in lesser traffic noise impacts
Effects on agricultural lands	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Increased demand for long-term water supplies	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Increased demand for sanitary sewer services	Less than significant	Less than significant	Less than significant
Loss of sensitive wildlife and plant habitat	Significant and unavoidable	Significant and unavoidable Alternative 1 would have somewhat more severe impacts than described above because it does not include updated protective policies proposed as a part of the proposed project.	Significant and unavoidable
Disturbance of archeological/historical sites	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable New policies would protect more resources, and narrower arterials would have less potential to adversely affect historic structures

Impact Topic	Proposed UAGP Update	Alternative 1—No-Project Alternative	Alternative 2—No Changes to Street Designations
Increased demand for storm drainage	Significant and unavoidable	Significant and unavoidable Alternative 1 would have greater impacts on drainage than the proposed project in that it would not contain the protective policies proposed with the UAGP amendment.	Significant and unavoidable
Flooding and water quality	Less than significant	Less than significant	Less than significant
Increased demand for parks and open space	Less than significant	Less than significant	Less than significant
Increased demand for schools	Less than significant	Less than significant	Less than significant
Increased demand for police services	Less than significant	Less than significant	Less than significant
Increased demand for fire services	Less than significant	Significant and unavoidable	Less than significant
Generation of solid waste	Less than significant	Less than significant	Less than significant
Generation of hazardous materials	Less than significant	Less than significant	Less than significant
Geology, soils, and mineral resources	Less than significant	Less than significant	Less than significant
Energy	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Effects on visual resources	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Land use and planning	Less than significant	Less than significant	Less than significant
Climate change	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable Because the road changes proposed as part of the project are likely to increase VMT by reducing congestion and inducing additional travel, Alternative 2 would be expected to have a smaller impact than the proposed project because it would not include those road changes.

b. Cumulative Impacts

Potential significant cumulative impacts associated with the proposed UAGP update were identified in analysis of the proposed UAGP update. These include the following: conversion of agricultural lands; increased noise; air quality impacts; effects on historic/archaeological sites, loss of habitat; increased demand for storm drainage facilities, increased demand for water supply in drought years by 2020, increased demand for solid waste facilities, increased demand for energy, effects related to increased light and glare, traffic and circulation needs, and contribution to global climate change.

E. REQUIRED APPROVALS

The Master EIR will be used as the basis for analyzing later projects. As provided under CEQA, later analysis can be streamlined for those projects that are “within the scope” of the Master EIR (Public Resources Code Section 21157). A comprehensive list of the projects that will normally be considered within the scope of the Master EIR is contained in Chapter II of this document.

Chapter II

Implementation and Use of the Master Environmental Impact Report

This chapter describes the requirements for a master environmental impact report (Master EIR) under state law, how this Master EIR meets those requirements, and the application of the Master EIR to the analysis of subsequent projects.

A. REQUIRED CONTENTS OF A MASTER ENVIRONMENTAL IMPACT REPORT

Public Resources Code (PRC) Section 21157 states that a Master EIR may be prepared for any of a variety of projects, including, as in this case, a general plan. PRC Section 21157(b) describes the required contents of a Master EIR. This Master EIR complies with the requirements of PRC Section 21157(b) as follows.

1. Public Resources Code 21157(b)(1)

a. Requirement

PRC Section 21157(b)(1) states that a Master EIR prepared by a lead agency must include a “detailed statement as required by Section 21100.”

b. How this Master Environmental Impact Report Implements the Requirement

PRC Section 21100 describes the minimum contents of an environmental impact report (EIR). The Master EIR contains all required components, including a summary, a project description, an analysis of environmental impacts, the identification of feasible mitigation measures, and the identification of a reasonable range of alternatives.

2. Public Resources Code 21157(b)(2)

a. Requirement

PRC Section 21157(b)(1) states that a Master EIR prepared by a lead agency must include:

A description of anticipated subsequent projects that would be within the scope of the master environmental impact report, that contains sufficient information with regard to the kind, size, intensity, and location of the subsequent projects, including, but not limited to, all of the following:

(A) The specific type of project anticipated to be undertaken.

- (B) The maximum and minimum intensity of any anticipated subsequent project, such as the number of residences in a residential development, and, with regard to a public works facility, its anticipated capacity and service area.
- (C) The anticipated location and alternative locations for any development projects.
- (D) A capital outlay or capital improvement program, or other scheduling or implementing device that governs the submission and approval of subsequent projects.

These requirements have been clarified by Section 15176(d) of the State California Environmental Quality Act (CEQA) Guidelines. That section provides that, with respect to items A–C above, where the project is a general plan or general plan update, the anticipated subsequent projects are described adequately when the general plan identifies the land use designations and the permissible densities and intensities of use. Further, with respect to item D above, a Master EIR may explain why practical planning considerations render it impractical to identify a capital improvements program or other scheduling device at the time the Master EIR is prepared.

b. How this Master Environmental Impact Report Implements the Requirement

The anticipated subsequent projects for this Master EIR are private development projects, such as subdivisions and conditional use permits; public development projects, such as capital improvements programs and wastewater master plans; and projects, such as comprehensive plans, that enable future private projects. The types of anticipated subsequent projects are identified later in this chapter and in Chapter VIII of the *City of Modesto Urban Area General Plan* (UAGP).

Referencing the UAGP, the Master EIR identifies permissible densities and intensities of use for each land use designation. Proposed amendments to the UAGP are discussed in Chapter III, *Project Description*. The UAGP is incorporated by reference, with the exception of those portions proposed for amendment, in Chapter III.

The UAGP provides for the phasing of future development of the Planned Urbanizing Area through the adoption of individual comprehensive plans. This fulfills the requirements of subdivision D of PRC Section 21157(b)(2). The timing of the individual comprehensive plans depends on market demand and the approval of sewer trunk line extensions.

3. Public Resources Code Section 21157(b)(3)

a. Requirement

PRC Section 21157(b)(3) states that a Master EIR must include:

A description of potential impacts of anticipated subsequent projects for which there is not sufficient information reasonably available to support a full assessment of potential impacts in the master environmental impact report. This description shall not be construed as a limitation on the impacts which may be considered in a focused environmental impact report.

b. How This Master Environmental Impact Report Implements the Requirement

Each of the discussions of individual environmental issues in Chapter V (e.g., traffic, air quality, et al.) discloses the potential impacts for which sufficient information to support a full assessment is currently unavailable. In addition, the Master EIR establishes the assumptions for determining whether a subsequent project is within the scope of the Master EIR and whether the Master EIR is considered current at the time that project is considered.

B. CITY OF MODESTO URBAN AREA GENERAL PLAN GROWTH STRATEGY AND ANTICIPATED SUBSEQUENT PROJECTS

The UAGP's Growth Strategy Diagram identifies three subareas within the overall Modesto planning area: the Redevelopment Area, the Baseline Developed Area, and the Planned Urbanizing Area. These are illustrated in Figure II-1. The application of the Master EIR's analysis and mitigation measures varies between these areas. The City's procedures are described as follows.

1. Redevelopment Area

On October 9, 2007, the Redevelopment Agency (RDA) adopted a new Master Plan, of which a key component is the revised Land Use Strategy Map. Concurrent with the General Plan Amendment and by separate action, the *Amended Redevelopment Plan for the Modesto redevelopment Project* is being amended to include the Land Use Strategy Map. The *Amended Redevelopment Plan for the Modesto Redevelopment Project*, adopted in November 1991, and as subsequently amended, and the *Modesto Redevelopment Master Plan*, adopted by the Redevelopment Agency in October 2007, or as subsequently amended, are incorporated by reference into the UAGP. The Redevelopment Area will develop in the future according to the adopted *Redevelopment Master Plan* and existing zoning. If a subsequent project within the Redevelopment Area conforms to the *Redevelopment Master Plan* and general plan designation, the initial study for the project will find it to be within the scope of this Master EIR unless there is a project-specific impact that was not analyzed in the Master EIR. All feasible mitigation measures appropriate to the project (as identified in this Master EIR and the Program EIR certified for the *Redevelopment Master Plan*) will be incorporated into the project, and public notice will be provided indicating that the City of Modesto (City) intends to use the Master EIR for the project. When the project is approved, the City will file a notice of determination. (PRC Section 21157.1.)

2. Baseline Developed Area

Within the Baseline Developed Area, the UAGP reflects existing zoning. As a result, this area generally will be developed according to the existing zoning designations. If a subsequent project within this area conforms to the proposed UAGP, the initial study for the project will find it to be within the scope of this Master EIR unless there is a project-specific impact that was not analyzed in the Master EIR. No further environmental review will be required.

All feasible mitigation measures appropriate to the project (as identified in this Master EIR) will be incorporated into the project, and public notice indicating that the City intends to use the Master

EIR for the project will be provided. When the project is approved, the City will file a notice of determination. (PRC Section 21157.1.)

3. Planned Urbanizing Area

The Planned Urbanizing Area encompasses the Comprehensive Planning Districts (CPDs) identified in Chapter III of the UAGP. This area is intended to contain most of the City's growth through 2025. So that development proceeds in an orderly fashion, development in each of the CPDs is restricted until a comprehensive plan for that district has been adopted by the City. The comprehensive plan will implement the UAGP policies identified in Chapter III of the UAGP and establish development policies specific to that district. This includes the policies requiring adoption of one or more specific plans to specify the intensity and location of development within the district.

A focused EIR, as defined in PRC Section 21158, will be required prior to development in each CPD as specific plans are proposed. As long as development allowed by the proposed comprehensive plan does not exceed the intensities allowed by the UAGP (reflected in the total number of dwelling units and acres of employment land uses specified in the *Community Development Policies* section of the UAGP), no analysis of cumulative impacts, growth-inducing impacts, or irreversible significant impacts on the environment will be required in the focused EIR. The issue-specific environmental analyses in Chapter V of this Master EIR serve to further define the analyses that would be required for each focused EIR.

Future focused EIRs will modify this Master EIR to keep it up-to-date as required under PRC Section 21157.6.




C. ANTICIPATED SUBSEQUENT PROJECTS

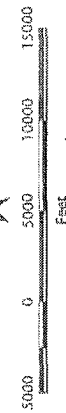
With one exception, certification of a Master EIR streamlines the analysis of subsequent projects that are within the scope of that Master EIR. The mitigation measures identified in the Master EIR, in conjunction with the policies of the UAGP, will be applied to those subsequent projects as conditions of approval.

In order to be considered for streamlined environmental review, "anticipated subsequent projects" must be identified in the Master EIR. Eighteen types of subsequent projects are hereby declared to be "within the scope of the Master EIR," as defined in PRC Section 21157.1. Unless otherwise stated, the City will be the lead agency for each of these subsequent projects.

Except as may be described in Chapter III, *Project Description*, none of these subsequent projects is being considered in conjunction with the UAGP Amendment being analyzed as part of this Master EIR. At such time as they are considered, these subsequent projects will be subject to the preparation of an initial study that will determine whether they are "within the scope of the Master EIR." The initial study also will determine whether they have been adequately described in the Master EIR or whether a mitigated negative declaration or focused EIR must be prepared.

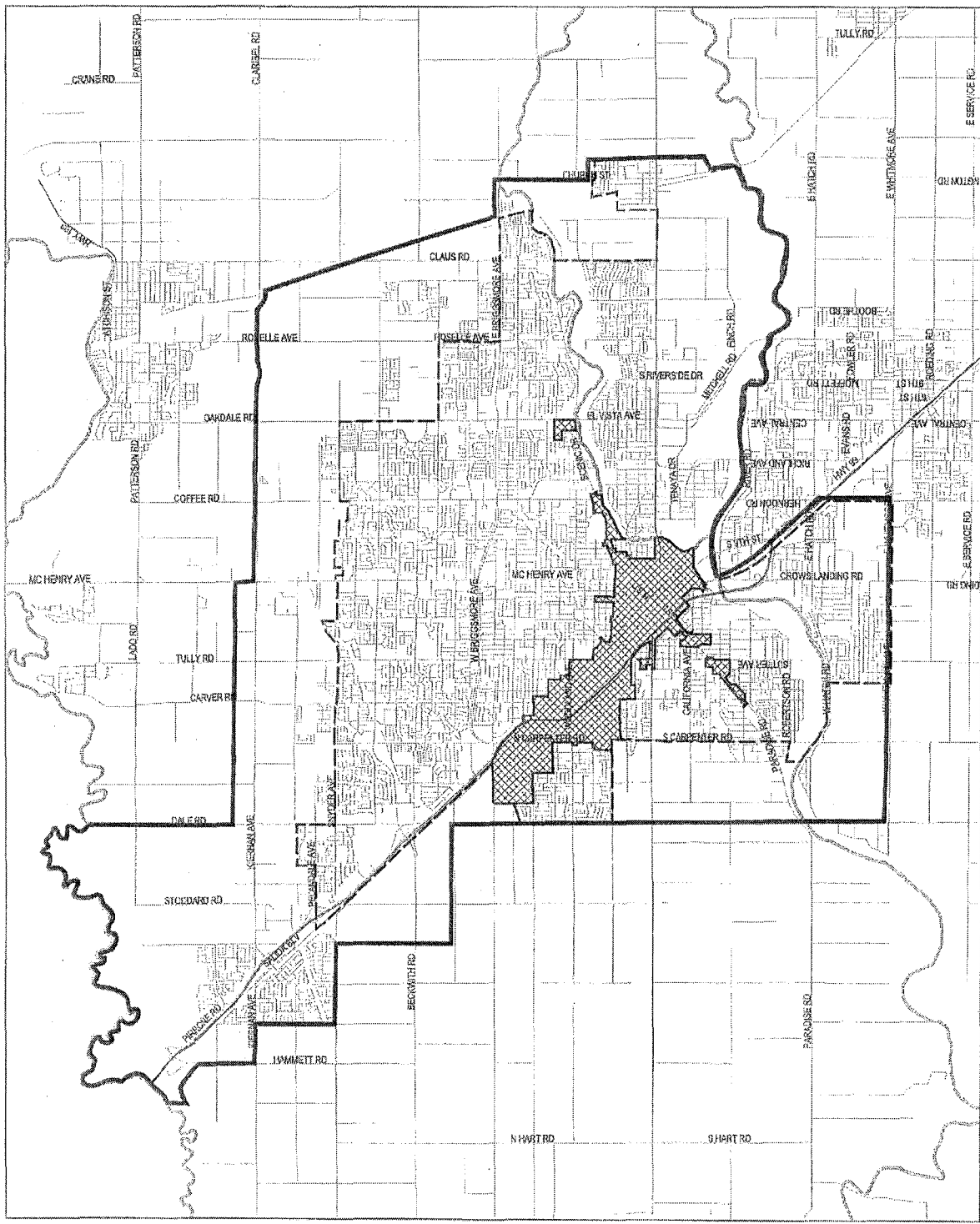
Figure II-1
Growth Strategy Diagram

- Legend**
-  Redevelopment Areas
 -  Baseline Developed Areas
 -  Planned Urbanizing Area



Source: City of Modesto 2002.

Jones & Stokes



The Master EIR's use in analyzing subsequent projects is limited once the Master EIR is 5 years old or if a new project brings to light information that would affect the adequacy of the Master EIR's analyses. These conditions are described in PRC Section 21157.6(a) as follows.

- (1) The certification of the master environmental impact report occurred more than five years prior to the filing of an application for the subsequent project.
- (2) The filing of an application for the subsequent project occurs following the certification of the master environmental impact report, and the approval of a project that was not described in the master environmental impact report, may affect the adequacy of the environmental review in the master environmental impact report for any subsequent project.

PRC Section 21157.6 explains how this limitation can be avoided.

- (b) A master environmental impact report that was certified more than five years prior to the filing of an application for the subsequent project may be used for purposes of this chapter to review a subsequent project that was described in the master environmental impact report if the lead agency reviews the adequacy of the master environmental impact report and does either of the following:
 - (1) Finds that no substantial changes have occurred with respect to the circumstances under which the master environmental impact report was certified or that no new information, which was not known and could not have been known at the time that the master environmental impact report was certified as complete, has become available.
 - (2) Prepares an Initial Study and, pursuant to the findings of the Initial Study, does either of the following:
 - (A) Certifies a subsequent or supplemental environmental impact report that has been either incorporated into the previously certified master environmental impact report or references any deletions, additions, or any other modifications to the previously certified master environmental impact report.
 - (B) Approves a mitigated negative declaration that addresses substantial changes that have occurred with respect to the circumstances under which the master environmental impact report was certified or the new information that was not known and could not have been known at the time the master environmental impact report was certified.

1. Sphere-of-Influence Amendment

The City's sphere of influence delineates the probable physical boundaries and service area established by the Stanislaus County (County) Local Agency Formation Commission (LAFCo) pursuant to Government Code Section 56425(e). The LAFCo, in determining the sphere of influence, must consider each of the following issues.

- (1) The present and planned land uses in the area, including agricultural and open-space lands.
- (2) The present and probable need for public facilities and services in the area.
- (3) The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.
- (4) The existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

Government Code Sections 56426 and 56426.5 limit the extension of a sphere of influence to lands that are subject to either a Williamson Act or "Super Williamson Act" agricultural land conservation contract.

The UAGP covers an area larger than the incorporated limits of the city and its current sphere of influence. In order to eventually annex those adjoining lands, the City must apply to the LAFCo for amendments to its sphere of influence. Upon annexation to the City, development would occur as outlined in the UAGP.

The provisions of the Planned Urbanizing Area would apply to the City's review of proposed amendments to its sphere of influence.

2. Annexation

Annexation is the inclusion, attachment, or addition of territory to a city (Government Code Section 56017). Like the establishment of a sphere of influence, annexation is subject to review and approval by the LAFCo. Annexation may be initiated by the City or by a petition of property owners, in accordance with the requirements of the Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Section 56000 et seq.) and LAFCo policy. Annexation to the City brings the affected land under the land-use controls of the City, in addition to bringing it within the City's service area.

Government Code Section 56301 sets out the following philosophy for LAFCo actions.

Among the purposes of a commission are discouraging urban sprawl, preserving open-space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation and development of local agencies based upon local conditions and circumstances. One of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities.

Government Code Section 56668 requires the LAFCo to consider the following factors in determining whether to approve an annexation proposal.

- (a) Population and population density; land area and land use; per capita assessed valuation; topography, natural boundaries, and drainage basins; proximity to other populated areas; the likelihood of significant growth in the area and in adjacent incorporated and unincorporated areas, during the next 10 years.
- (b) Need for organized community services; the present cost and adequacy of governmental services and controls in the area; probable future needs for those services and controls; probable effect of the proposed incorporation, formation, annexation, or exclusion and of alternative courses of action on the cost and adequacy of services and controls in the area and adjacent areas. "Services" ... refers to governmental services whether or not the services are services that would be provided by local agencies subject to [LAFCo regulation] and includes the public facilities necessary to provide those services.
- (c) The effect of the proposed action and of alternative actions on adjacent areas, on mutual social and economic interests, and on the local governmental structure of the county.

- (d) The conformity of the proposal and its anticipated effects [with the LAFCo's adopted policies regarding] planned, orderly, efficient patterns of urban development and the [state policies and priorities discouraging the conversion of agricultural land and the conversion of open-space land prior to utilization of land within the City or its sphere.]
- (e) The effect of the proposal on maintaining the physical and economic integrity of agricultural lands.
- (f) The definiteness and certainty of the boundaries of the territory, the nonconformance of proposed boundaries with lines of assessment or ownership, the creation of islands or corridors of unincorporated territory, and other similar matters affecting the proposed boundaries.
- (g) Consistency with city or county general and specific plans.
- (h) The sphere of influence of any local agency which may be applicable to the proposal.
- (i) The comments of any affected local agency.
- (j) The ability of the newly formed or receiving entity to provide the services which are the subject of the application to the area, including the sufficiency of revenues for such services following the proposed boundary change.
- (k) Timely availability of water supplies adequate for projected needs as specified in Section 65352.5.
- (l) The extent to which the proposal will [assist the receiving entity in achieving its fair share] of the regional housing needs as determined by the appropriate council of governments.
- (m) Any information or comments from the landowner or owners, voters, or residents of the affected territory.
- (n) Any information relating to existing land use designations.
- (o) The extent to which the proposal will promote environmental justice. As used in this subdivision, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.

The City will pursue the eventual annexation of all those lands within the Modesto planning area, including unincorporated "islands" that are currently surrounded by the city limits. This course of action will involve making a number of annexation requests to LAFCo. The provisions of the Planned Urbanizing Area would apply to the City's review of proposed annexations.

3. Comprehensive Plans

A comprehensive plan is a policy document that serves to implement the CPD concept promulgated by Section III-D of the UAGP. A comprehensive plan would implement the UAGP by creating a bridge between UAGP policies and the more specific policies that will be applied to individual developments. Ideally, a comprehensive plan would direct all facets of future development within the CPD, including the distribution of land uses, the location and sizing of supporting infrastructure, methods of financing public improvements, and standards of development.

Modesto eventually will adopt comprehensive plans for all 25 of the CPDs identified in the UAGP. Development under an adopted comprehensive plan—whether it is a conditional use permit, subdivision, or rezoning—will be required to conform to the policies and planning diagrams of that plan. Each comprehensive plan would conform to the policies of the UAGP. The UAGP explains

that one or more specific plans will be adopted within each CPD. That specific plan or plans will constitute the comprehensive plan for that CPD.

As discussed above, adoption of a comprehensive plan will require a focused EIR that examines the CPD-specific issues that were not fully analyzed in the Master EIR for the UAGP.

4. Specific Plans

The City may use specific plans, as defined under Government Code Section 65450, to meet the requirement for preparation of comprehensive plans. Specific plans also will require a focused EIR.

5. Zoning

The City's zoning ordinance is Title X of the Modesto Municipal Code. Zoning regulates the use of buildings, structures, and land for residences, business, industry, open space, and public uses. It is one means by which the UAGP is implemented. Whereas a general plan establishes policies to guide development, zoning is one of the regulatory methods by which a city puts those policies into action.

Under the City's zoning ordinance, each parcel of land is assigned a zoning designation (e.g., Low Density Residential [R-1], Medium Density Residential [R-2], and Professional Office [P-O]) that describes the allowable uses and development standards applicable to that parcel.

The City may undertake rezonings at the request of private applicants or on its own for the purpose of implementing the UAGP. Rezonings in the Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area are within the scope of the UAGP's Master EIR if they are consistent with the UAGP or an approved comprehensive plan. The City will determine whether further environmental analysis is needed after preparation of an initial study.

6. Miscellaneous Land Use Permits

The City processes a variety of permits that facilitate development. Examples include the following.

a. Conditional Use Permits (Authorized under Section 10-2.2503 of the Modesto Municipal Code)

These are discretionary permits through which the City considers whether to approve a particular use of land and what conditions to place on an approval. The range of possible conditional uses is established under the zoning ordinance, as are the requirements for public notice and hearing.

Each year the City considers many conditional use permit applications, submitted primarily by private applicants.

b. Variances (Authorized under Section 10-2.2501 of the Modesto Municipal Code)

A variance is a limited exception from the standards normally applicable under the zoning ordinance for which special circumstances exist such that the affected property does not enjoy the same benefits as nearby properties in the same zone. The standards by which to judge the validity of a variance request, as well as the requirements for public notice and hearing, are established by the zoning ordinance.

Each year the City considers many variance requests, submitted primarily by private applicants.

c. Building Permits (Authorized under Title 9 of the Modesto Municipal Code)

With few exceptions, before construction can be started, a building permit must be obtained from the City. The permit establishes that construction is taking place in accordance with accepted building codes. Building permits are issued routinely and require no public notice or hearing.

7. Subdivisions

The division of land for sale, lease, or financing is governed by the state Subdivision Map Act (Government Code Section 66410, et seq.), as administered by the City's subdivision regulations (Section 4-4.4101 et seq. of the Modesto Municipal Code). The creation of four or fewer lots is a minor, or parcel map, subdivision. The creation of five or more lots is a major subdivision and generally subject to more intensive development standards. Subdivisions are another means of implementing the UAGP and cannot be approved unless consistent with the UAGP.

The City approves numerous subdivisions each year for residential, commercial, and industrial projects. The Modesto Municipal Code sets forth requirements for subdivision applications, such as the requirements for public notice and hearings. Subdivisions will be subject to review in all of the three subareas, as discussed in Section B above.

8. Development Agreements

A development agreement is a contract between the City and a developer that establishes vested rights to develop property in a particular manner under the rules in existence at the time the agreement is entered into. Development agreements are voluntary, so in most cases the City only enters into an agreement if the developer agrees to certain concessions. A development agreement is effective for the period of time established in the agreement (usually 10 to 20 years). Government Code Section 65865 et seq. establishes the rules for these agreements.

A development agreement must be consistent with the UAGP and thereby implements the UAGP. Such an agreement must be heard by the Planning Commission and Modesto City Council before approval may be granted. Development agreements may be considered in any of the three subareas but are expected to be most prevalent in the Planned Urbanizing Area.

9. Capital Improvement Program

The City's Capital Improvement Program (CIP) guides the funding and construction of all public improvements constructed by the City, including roads, wastewater treatment facilities, water lines, and parks. Government Code Section 65401 provides that public works projects must be reviewed by the City for conformity with the UAGP. The CIP embodies this review. The CIP will address subsequent projects in all three subareas.

10. Redevelopment Plan

The Community Redevelopment Act (Health and Safety Code Section 33000 et seq.) enables a city to establish a redevelopment agency for the purpose of eliminating urban blight. The act gives the redevelopment agency certain fundamental tools, including:

- a. the authority to buy real property, including the power to use eminent domain for redevelopment purposes;
- b. the authority to sell property without bidding;
- c. the authority to relocate persons and the obligation to provide relocation assistance; and
- d. the authority to impose land use and development controls pursuant to a comprehensive plan of redevelopment.

Redevelopment activities will be confined to the Redevelopment Area.

The Modesto City Council serves as the board of directors for the Redevelopment Agency. It holds joint public hearings over redevelopment activities. The City typically makes many decisions related to Redevelopment Agency activities each year. The *Redevelopment Master Plan* was adopted in 2007 and is consistent with the UAGP. A minor amendment to the Redevelopment Plan has been proposed to ensure continued consistency between the Redevelopment Plan and the General Plan. The Redevelopment Plan Amendment will be concurrently considered by Planning Commission and City Council with the General Plan Amendment.

11. Parks Facilities Plans

The City Parks, Recreation and Neighborhoods Department is responsible for constructing and maintaining public parks and recreation facilities throughout Modesto. To guide development of these facilities, the City uses a variety of tools, including park master plans and design development reports for neighborhood, community, and regional parks; *Modesto Non-Motorized Transportation Master Plan*; *Tuolumne River Regional Park Master Plan*; and the *City of Modesto Design Standards for Dual Use Flood Control/Recreation Facilities* manual. As is the case with the CIP,

parks facilities plans are subject to review for consistency with the UAGP pursuant to Government Code Section 65401.

Parks facilities plans may be adopted in any of the three subareas but are expected to be most prevalent in the Planned Urbanizing Area. When a comprehensive plan has been adopted, parks facilities plans also will be required to reflect the pertinent mitigation measures identified in the focused EIR for the comprehensive plan.

12. Stanislaus County Airport Land Use Plan

The County Airport Land Use Commission (ALUC) is authorized under Section 21670 of the Public Utilities Code to adopt comprehensive airport land use plans for general use airports in the county “that will provide for the orderly growth of each public airport and the area surrounding each public airport.” The UAGP and County General Plan must be consistent with the airport land use plan. In formulating the airport land use plan, the ALUC may establish height restrictions on buildings, specify the uses of land, and determine building standards within the airport planning area. The airport land use plan cannot control airport operations, however.

The County airport land use plan was adopted in 1978. It may be amended from time to time and may necessitate related amendments to the UAGP if inconsistencies arise. The Modesto City-County Airport is located within the Baseline Developed Area.

13. Household Hazardous Waste Element

Under the California Integrated Waste Management Act, the City is required to adopt a household hazardous waste element. This is not a UAGP element, but rather an element of the County’s integrated waste management plan (IWMP). This element identifies a program for the safe collection, recycling, treatment, and disposal of hazardous wastes that are generated by City households and should be separated from the solid waste stream. PRC Section 41500 requires the Modesto City Council to submit its household hazardous waste element to the County.

The household hazardous waste element applies citywide and affects all three planning subareas.

14. Source Reduction and Recycling Element

The Integrated Waste Management Act also requires the City to adopt a source reduction and recycling element (SRRE) to show the methods by which the City will reduce the amount of solid waste being disposed of by city residents. This is also an element of the County’s IWMP and must be submitted to the County for inclusion in the plan.

The SRRE applies citywide and would affect all three subareas.

15. Wastewater Master Plan

Modesto adopted the *Wastewater Master Plan* in 2007 in order to construct, operate, and maintain various wastewater collection and treatment facilities. The purpose of the *Wastewater Master Plan* is to implement the wastewater policies of the UAGP. Accordingly, the plan will allow the City to meet the wastewater collection and treatment needs projected at UAGP buildout in 2025.

A Master EIR was prepared for the *Wastewater Master Plan*. That document will form the basis, pursuant to PRC Section 21157.1, for CEQA compliance as each component of the *Wastewater Master Plan* is proposed for construction.

16. Urban Water Management Plan

The joint *Urban Water Management Plan* (UWMP) was adopted in 2007. It describes the City's long-term water supplies, as well as its management program to ensure that customers will be adequately served. The purpose of the UWMP is to implement the water policies established in Section V-C of the UAGP.

Future amendment of the UWMP shall be considered an anticipated subsequent project in the context of PRC Section 21157. However, because the specific facilities covered by future UWMPs are not determined at this time, a focused EIR or subsequent mitigated negative declaration will be required prior to the adoption of these plans.

17. Storm Water Facilities Plans

Storm water drainage facilities may be constructed, operated, maintained, and replaced in a manner that will provide the best possible service to the public, given the financial abilities and constraints of the City and the private sector. In developing implementation plans, consideration may be given to rehabilitation of existing facilities, remediation of developed areas with inadequate levels of drainage service, and timely expansion of the system for future development. The purpose of these facilities is to implement the policies of Section V-E of the UAGP.

The City adopted a *Storm Drainage Master Plan* in 2007. Each of these facilities' plans shall be considered "an anticipated subsequent project" in the context of PRC Section 21157. However, because the specific facilities covered by these plans are not determined at this time, a focused EIR or subsequent mitigated negative declaration will be required prior to the adoption of these plans.

18. Public Facilities Financing Plans

Local governments have a number of options available for financing public facilities such as streets, sewers, water, drainage, schools, parks, fire and police stations, and public utilities. Examples of these options currently used or contemplated by the City include: Mello-Roos community facilities districts, Landscaping and Lighting Act and other assessment districts, Capital Facilities Fees programs, Area of Benefit procedures, and a long-range financial plan.

Virtually all of these public facilities are or will be programmed for construction under a policy document such as a master plan or the capital improvements program mentioned in Section C-9 above. Because the environmental review for these facilities will be undertaken with the policy documents, which describe the physical change resulting from the facilities, the financing of these facilities will not trigger subsequent environmental review. The financing is outside the definition of "project" under PRC Section 21065.

D. RESPONSIBLE AGENCIES

Pursuant to PRC Section 21157.1(a), a responsible agency may become the lead agency for a subsequent project under the Master EIR. The following are considered responsible agencies for the purposes of this Master EIR (typical permits or actions that qualify the following as responsible agencies are listed in parentheses):

1. the County LAFCo (sphere of influence amendment and annexation);
2. the County (airport land use plan, IWMP, rezoning, County General Plan, or community plan amendment);
3. the California Department of Fish and Game (streambed alteration agreement and incidental "take" permit);
4. the California Department of Public Health (water supply permits);
5. the California Department of Transportation (road widenings, highway encroachment permits, and airport expansion);
6. the State Lands Commission (lease of public trust lands);
7. the State Water Resources Control Board (biosolids permits);
8. the state Department of Water Resources, Reclamation Board (floodplain and levee encroachment permits);
9. the Regional Water Quality Control Board (waste discharge requirements, National Pollutant Discharge Elimination System permits, and Clean Water Act certifications);
10. the California Public Utilities Commission (construction or alteration of a railroad crossing); and
11. the Modesto Irrigation District.

Chapter III

Project Description

A. DESCRIPTION

1. Background

This master environmental impact report (Master EIR) examines the *City of Modesto Urban Area General Plan* (UAGP), as amended, and updates the 2003 Master EIR accordingly. The Master EIR examines potential impacts at the UAGP's level of detail. It will apply to individual development projects that are considered under the UAGP in the future, but it does not specifically analyze any given development project.

The "project" analyzed in this updated Master EIR consists of an amendment to the UAGP, together with a minor amendment to the Redevelopment Plan. The UAGP was last comprehensively updated in 1995, when the UAGP and a Master EIR were adopted as cohesive planning and environmental mitigation documents. Since 1995, more than 20 UAGP amendments have been adopted along with updates to the Master EIR. A new Master EIR was certified for the UAGP in 2003 to address the numerous updates to the UAGP. The current UAGP Amendment (proposed project) responds to changes in federal, state, and local policies that have occurred since the UAGP was adopted by the Modesto City Council in 1995 and amended in 2003. The horizon of the UAGP is 2025.

The housing element of the UAGP was updated and certified in 2004. It will not be amended as part of the amendment of the UAGP. A new traffic model for the Modesto–Stanislaus County region has been prepared and applied to the proposed project. The proposed project incorporates current utility master plans and the new traffic model, as well as past changes to the UAGP. Other than changing the designations of selected roads, no changes are proposed to the UAGP's existing circulation diagram. Additionally, no major changes to land use patterns are proposed. However, the UAGP amendment will revise some of the land use designations.

The UAGP amendment is intended to extend the useful life of the UAGP until a comprehensive update is completed. According to state law, the Master EIR must be updated in conjunction with the UAGP being updated. The Master EIR update is also consistent with provisions of the California Environmental Quality Act (CEQA) that require periodic review and update of Master EIRs.

As mentioned elsewhere, a minor amendment to the Redevelopment Plan has also been proposed to ensure continued consistency between the Redevelopment Plan and the Urban Area General Plan. The Redevelopment Plan Amendment will be concurrently considered by Planning Commission and City Council with the amendment to the Urban Area General Plan.

2. Project Location

Modesto is located in Stanislaus County, in the northern San Joaquin Valley, approximately 95 miles east of San Francisco and 80 miles south of Sacramento (see Figure III-1, "Project Vicinity"). The City of Ceres is located immediately south of the Modesto city limits, the City of Riverbank is located immediately northeast, and the unincorporated town of Salida is located northwest.

The Modesto city limits include an area of 36.9 square miles. The City of Modesto's (City's) sphere of influence comprises an additional 19 square miles and land within the Modesto planning area's boundary but outside of the sphere of influence includes another 19.8 square miles.

The City of Modesto planning area encompasses approximately 67 square miles or 42,900 acres. The planning area is generally bounded by the Stanislaus River on the north; Whitmore Avenue on the south; Morse Road, Toomes Road, and Hammett Road on the west; and North Santa Fe Avenue and the Burlington Northern Santa Fe Railroad on the east. The City's planning area encompasses Salida (see Figure III-2, "City of Modesto Planning Area"). The planning area generally describes the lands that are anticipated to be urbanized by 2025.

3. Project Elements

The proposed project is an amendment of the UAGP intended to modernize it, not to develop a new vision for Modesto. The proposed project would not revise the land use diagram, UAGP boundary, or sphere of influence, and the horizon would continue to be 2025.

Updates to the UAGP included in this amendment fall into three major categories:

(1) incorporating as policy those City practices that are regularly approved and which effectively have become policy, (2) proposing policies (amendments to the UAGP) to provide direction for anticipated issues, and (3) incorporating adopted policies that are not currently reflected in the UAGP. The following lists identify the proposed updates to the UAGP within these three major categories.

a. Practices as Policies

The UAGP amendment incorporates as policies the following practices that are regularly approved. These policies have not been the subject of prior environmental review.

- Land use classifications—The descriptions of land use classifications are updated where necessary and refined to provide better correlation to zoning.
- Sphere-of-influence development—Development that occurs within the sphere of influence, as well as the relationship between City and County, are addressed.
- Construction of rock wells—New policies restrict the construction of new rock wells.
- "Potable well water" definition—A definition of "potable well water" is added to the proposed project.

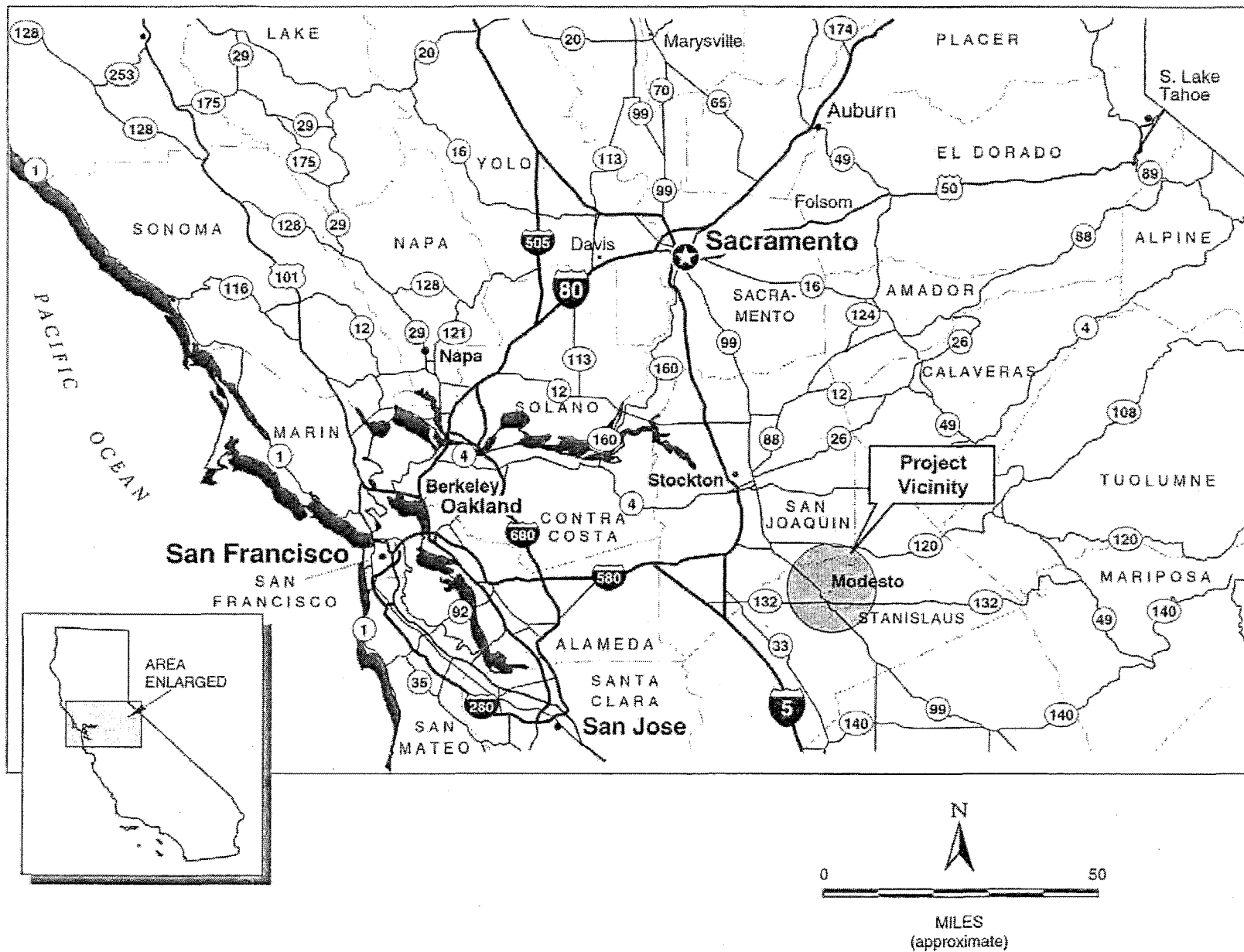
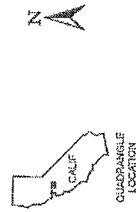


Figure III-2
City of Modesto Planning Area

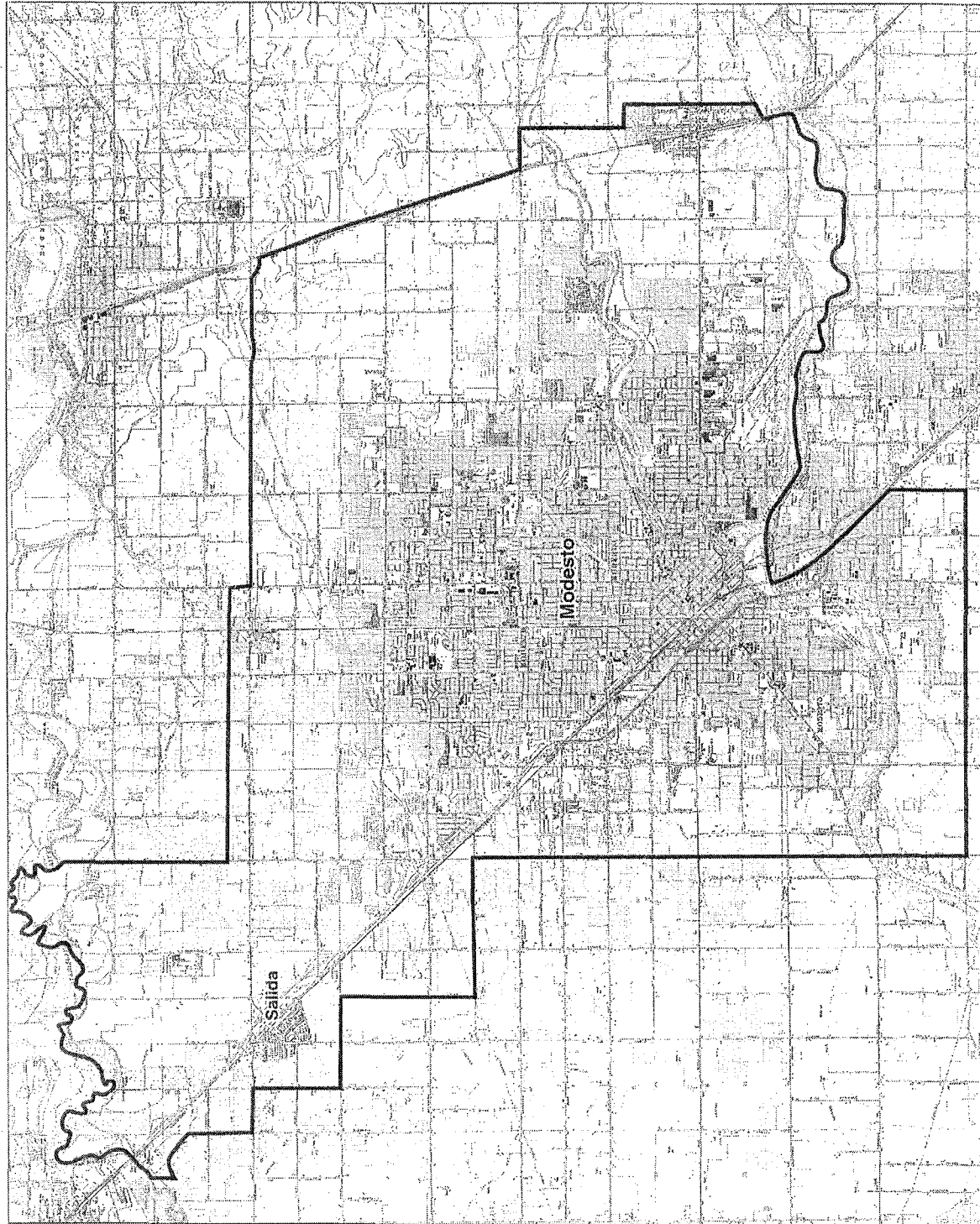
Legend
Project Area

0 0.5 1 Kilometer
0 0.5 1 mile

SOURCE: Portion of USGS 7.5' Quadrangle, Salina, California, 1966, Photorevised 1987. Riverbank, California, 1988, Photorevised 1987. Brush Lake, California, 1989, Photorevised 1976 and Carra, California, 1989, Photorevised 1987 (Modesto City and State).
SCALE: 1:70,500



Jones & Stokes



b. Proposed Policies

The UAGP amendment includes new policies to provide direction for anticipated issues. These policies have not been the subject of prior environmental review.

- **Infrastructure financing**—Utilities policies are revised to provide for timely and effective financing of infrastructure for new growth. Pay-as-you-go financing is changed to “up front” infrastructure construction.
- **Comprehensive Planning District policies**—Policies for the implementation of Comprehensive Planning Districts (CPDs) are expanded to better guide future specific plans and development with respect to land use policies, public facilities, and infrastructure planning.
- **Air quality element**—Data, analysis, goals, policies, and implementation strategies of the air quality section will be revised pursuant to Assembly Bill 170, “Air Quality Element: San Joaquin Valley” (codified in Section 65302.1 of the Government Code), which requires each city and county in the San Joaquin Valley Air Pollution Control District to amend its general plan (either through existing elements or by adding an air quality element) to include analyses, goals, policies, and implementation strategies to improve air quality in the region.
- **Annexation policies**—Current annexation policies are examined to determine the need for any policy revision in light of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 and Stanislaus County Local Agency Formation Commission procedures.
- **Minimum specific plan size**—The proposed project recommends a minimum specific plan size.
- **Dry Creek and Tuolumne River CPDs**—Development in the Dry Creek and Tuolumne River CPDs is addressed in the proposed UAGP.
- **Biological and archaeological resource study areas**—The proposed project revises the boundaries to better reflect biologically and archaeologically sensitive areas, and provide general biological mitigation measures.
- **Provision of sewer and water service within the sphere of influence**—The proposed project addresses the provision of sewer and water service within the City’s sphere of influence.
- **Development in the 100-year floodplain**—The proposed project addresses restrictions on development within the 100-year floodplain and incorporates the most recent Flood Insurance Rate Map information.
- **Archaeological and cultural resources**—Policy updates related to archaeological, cultural, and historic resources are based on state law, including State CEQA Guidelines Section 15064.5. This includes adding historic resources to the City’s list. General policies regarding paleontological resources are included to reflect the potential for encountering resources. Separately, the plan amendment process has included required consultations with Native American tribes pursuant to Senate Bill 18.
- **Separate sewer and water connections**—Separate sewer and water connections for each dwelling unit are addressed in the proposed project.

- **Public infrastructure in private developments**—The proposed project defines public infrastructure in private developments.
- **Police staffing goal**—The proposed project establishes a police staffing goal of 1.85 sworn officers per 1,000 citizens.
- **Fire department response times**—The proposed project establishes Modesto Fire Department response time standards.
- **Timing of street frontage improvements for minor annexations**—The proposed project addresses the timing of frontage improvements for minor annexations of County islands.
- **San Joaquin Regional Rail Commission report**—The proposed project responds to the San Joaquin Regional Rail Commission report, if it is available.
- **Redevelopment Master Plan**—UAGP policies are reviewed and revised to be consistent with the *Redevelopment Master Plan*, adopted on October 9, 2007.
- **Utilities/infrastructure**—Utility policies are updated to reflect utility constraints and coordinate with the imminent updates of the *Storm Water Master Plan*, as well as the *Water Master Plan* anticipated to be completed in 2008. For the purposes of infrastructure planning, the eventual population in the City's sphere of influence is estimated to be between 334,000 and 357,000 people by 2030.
- **Road system changes**—In addition to traffic policy revisions, the following are known needed changes to the road network.
 - **Dale Road**—A change from a minor arterial to a principal arterial in the entire Modesto planning area and a change from four lanes with the possibility of bike lanes to six lanes with no bike lanes.
 - **Bangs Avenue**—A change from a minor collector to a major collector with bike path from Dale Road to Tully Road and a change from two travel lanes to four travel lanes with bike lanes.
 - **Claratina Expressway**—Revision of the alignment, and a change from a four-lane expressway to a six-lane principal arterial east of Oakdale Road to Roselle Avenue, which allows for four travel lanes and Class I bicycle facilities.
 - **Carpenter Road**—A change from a six-lane expressway to a principal arterial with bike lanes from State Route 132 to Whitmore Avenue and a change from six lanes without bike lanes to six lanes with bike lanes.
 - **Claus Road**—Moving the alignment of Claus Road from Floyd Avenue to Claratina Avenue west of the Burlington Northern Santa Fe Railroad tracks.
 - **Sylvan Avenue**—A change from principal arterial to minor arterial with Class II bicycle facilities from Oakdale Road to Roselle Avenue.
- **Mitigation in the MEIR**—Mitigation arising in the Master EIR would be included in the proposed project as policies.

c. Include Adopted Policies

The UAGP Amendment incorporates the following adopted policies. These policies have been the subject of prior environmental review, as part of adoption.

- **Specific plan implementation**—Policy language that describes the elements of the comprehensive planning process and policies supporting and referencing the specific plan preparation guidelines adopted on October 5, 2004, is included in the proposed project.
- **Urban design**—The UAGP Amendment includes adopted policies that would support the preparation of design guidance documents, such as the *Guidelines for Small Lot Single-Family Residential Development*. The recently adopted *Guidelines for Commercial and Industrial Development* is incorporated into the proposed project by reference.
- **Utilities/infrastructure**—Utility policies are updated to reflect utility constraints and coordinate with the recently updated *Wastewater Master Plan* and the adopted *Joint Urban Water Management Plan* (May 2007). For the purposes of infrastructure planning, the eventual population in the City's sphere of influence is estimated to be between 334,000 and 357,000 people.
- **Roundabout Policy**—The proposed project incorporates the adopted City Roundabout Policy (dated September 2004) by reference.
- **1991 and 1998 traffic study criteria**—The proposed project incorporates the adopted 1991 and 1998 traffic study criteria.
- **Expressway access policy**—The proposed project incorporates the adopted expressway access policy that regulates and limits the number and design of expressway access locations in order to ensure the overall operational viability of expressways in the community.
- **Storm water**—The proposed project includes water quality and watershed protection principles that have been incorporated into the storm drainage section of the UAGP, consistent with the City's National Pollutant Discharge Elimination System permit, stormwater pollution prevention plan, and new guidelines.
- **Dual-use park-basin policy**—The (December 12, 2000) adopted dual-use park-basin policy incorporates by reference into the proposed project.
- **"Nonconforming" parks**—The definition of the policy (adopted in June 2005) to sell "nonconforming" parks is included in the proposed project.
- **Long Range Transit Plan**—The *Long Range Transit Plan for the City of Modesto* (adopted in August 2000) is incorporated by reference into the proposed project.
- **Hazard Mitigation Plan**—The proposed project is by reference the *Hazard Mitigation Plan*, adopted September 2005.
- **City of Modesto 2001–2004 Strategic Plan**—Appropriate objectives and policies from the adopted *City of Modesto 2001–2004 Strategic Plan* are incorporated into the proposed project.
- **Measure M (Citizens' Advisory Growth Management Act of 1995)**—The adopted Measure M policy is incorporated into the proposed project by reference.

- **Reasonable certainty policy**—The proposed project incorporates the reasonable-certainty policy adopted in May 2006, which requires that adequate wastewater treatment and disposal capacity can be provided for the annexed area; it also incorporates the adopted 10 percent risk policy, which addresses the risk of violating the City’s permit to discharge wastewater effluent to the San Joaquin River.
- **Crime Prevention Through Environmental Design policies**—Crime Prevention Through Environmental Design (CPTED) policies are incorporated into the proposed project by reference.
- **Kaiser Medical Center**—Policies adopted in association with the approval of Kaiser Medical Center (August 10, 2004) are incorporated into the proposed project by reference.
- **UAGP Amendments**—General Plan Amendments (GPAs) adopted since the 2003 UAGP, as well as those currently in progress, are incorporated into the proposed project. Adopted UAGP amendments have previously undergone environmental review.
 - GPA 03-002: Housing Element Update—adopted by Modesto City Council Resolution No. 2004-233 (April 27, 2004).
 - GPA 04-002: Regional Commercial to Residential, Coffee/Claratina—adopted by Modesto City Council Resolution No. 2005-70 (January 25, 2005).
 - GPA 06-02: Add “Principal Arterial with Bike Lanes” as a Classification to the UAGP and adopt the *Non-Motorized Transportation Master Plan*—adopted by Modesto City Council Resolution No. 2007-065 (January 9, 2007).

d. Potential Project Alternatives

The following alternatives are described in more detail in Chapter VIII, *Alternatives Analysis*, of this Master EIR.

Alternative 1. No-Project Alternative

This assumes that the 1995 UAGP would continue to be the City’s general plan. No amendments would be made.

Alternative 2. No Changes to Street Designations

Under this alternative, the street designations contained in the current UAGP would be retained. None of the changes to street designations that are described above would be made.

B. THE PURPOSE OF THE MASTER ENVIRONMENTAL IMPACT REPORT

A Master EIR provides a comprehensive overview of the potential environmental impacts that would result from adopting or amending a general plan, mitigation measures to avoid or minimize those impacts,

and alternatives to the general plan that would lessen or avoid those impacts. The Master EIR provides the basis for streamlining the review of later projects that are “within its scope.”

Projects that are consistent with the analysis contained in the Master EIR will not, in most cases, require extensive additional environmental review before they can be approved. An Initial Study (IS) will be prepared for such projects to document their consistency with the Master EIR, after which a finding of conformance can be made. Other projects that are within the scope of the Master EIR, but that have project-specific impacts that were not analyzed there, will be addressed in either Mitigated Negative Declarations (MNDs) or Focused EIRs.

1. California Environmental Quality Act Requirements

The contents and use of Master EIRs are prescribed by the CEQA and the State CEQA Guidelines (Section 21000 et seq., Title, 14, Chapter 3, California Code of Regulations). Public Resources Code (PRC) Section 21156 states, with regard to Master EIRs:

It is the intent of the Legislature in enacting this chapter that a master environmental impact report shall evaluate the cumulative impacts, growth inducing impacts, and irreversible significant effects on the environment of subsequent projects to the greatest extent feasible. The Legislature further intends that the environmental review of subsequent projects be substantially reduced to the extent that the projects impacts have been reviewed and appropriate mitigation measures are set forth in a certified master environmental impact report.

2. Modesto's Master Environmental Impact Report

Modesto originally certified its Master EIR in 1995 with the adoption of the UAGP. PRC Section 21157.6 provides that in order to continue using the Master EIR as a basis for project approvals, the City must periodically, but not less than every 5 years, review the adequacy of the Master EIR and either: (1) find that no substantial changes have occurred with respect to the circumstances under which the Master EIR was certified, or no new information, which was not known and could not have been known at the time the Master EIR was certified, has since become available; or (2) certify a subsequent or supplemental EIR which is then incorporated into the previously certified Master EIR.

The City has incorporated new analyses into the original Master EIR five times, most recently in 2003. This process of continual updates ensures that the City's Master EIR complies with PRC Section 21157.6.

C. PROJECT OBJECTIVES

The State CEQA Guidelines require that the project description include a statement of the objectives sought by the project (CEQA Guidelines Section 15124[b]). In addition to disclosing the project's intent, the objectives help the lead agency select a reasonable range of project alternatives to be evaluated in the EIR. The objectives may also aid the City in preparing findings or a statement of overriding considerations, if necessary (CEQA Guidelines Section 15124[b]).

The primary purposes of the proposed project are to incorporate adopted policies into the UAGP, codify regular practices as policies, update policies to reflect current regional, state, and federal laws and regulations, and provide an updated Master EIR to allow subsequent projects to rely on its environmental analysis.

The objectives of the proposed project include:

- incorporating pertinent guidance from the City's adopted 2001–2004 Strategic Plan;
- amending the UAGP to reflect pertinent new information and statutory changes that have occurred since 1995;
- amending the UAGP to reflect Modesto policy changes that have occurred since 2003;
- amending the UAGP without resulting in any substantial changes to the City's land use diagram or increases in development potential;
- incorporating information from the new traffic model currently under preparation into the UAGP, as appropriate;
- incorporating information from the most recent sewer, water, and storm drainage master plans into the UAGP;
- evaluating infrastructure master plans against current policies to determine how existing policies may need to be revised; and
- providing a "maintenance update" of the UAGP that will provide an adequate document pending a comprehensive UAGP overhaul in the future.

1. Objectives of the Master Environmental Impact Report Update

The City has the following basic objectives in updating its Master EIR.

- a. Maintain the adequacy of the Master EIR so that it may continue to be used as the basis for considering projects that are within its scope (PRC Section 21157 et seq.). Projects that are found to be within the scope will not require further environmental analysis upon issuance of a finding of conformance by the City. Findings of conformance will follow the preparation of an IS, pursuant to the Master EIR statute. The IS may include supplemental environmental considerations such as traffic impact studies.
- b. Maintain the adequacy of the Master EIR so that it may be used as the foundation for later Focused EIRs and MNDs on individual projects. The Master EIR helps to focus these analyses on the additional significant effects at hand.
- c. Include a new generation of mitigation measures addressing changes that have occurred since 2003. As described above, the mitigation measures from the 2003 Master EIR are now policies of the UAGP. These policies, which act to avoid potential impacts, are not listed as new mitigation measures.
- d. Rely on the "Initial Study/Finding of Conformance" that provides appropriate analysis of the environmental issues specific to the Modesto UAGP area. The IS will be used to extensively document conformance of all "anticipated subsequent projects" with the analysis and mitigation measures contained in the Master EIR.

- e. Adopt certain “thresholds of significance,” as authorized by Section 15064.7 of the CEQA Guidelines, that will form the analytical basis of the IS process under the Master EIR.

D. MODESTO URBAN AREA GENERAL PLAN

The UAGP is Modesto’s long-term, comprehensive guide for development. Its 42,700-acre planning area reaches beyond the current city limits and sphere of influence. For the purposes of infrastructure planning, the eventual population in the City’s sphere of influence is estimated to be between 334,000 and 357,000 people. Modesto’s Growth Strategy establishes three geographic areas within the plan: (1) the Redevelopment Area, consisting of the downtown area and an extended area along the railroad, within the 1991 Redevelopment Plan Area; (2) the Baseline Developed Area, consisting of lands served by the 1995 sanitary sewer system, plus areas that can be served by sanitary sewer from the City’s trunk system; and (3) the Planned Urbanizing Area, consisting of areas outside of the 1995 city limits but within the planning area and anticipated for development by 2025. The rate of change and general development approach for each of these areas is discussed in Chapter II.

The Master EIR analyzes the plan-level impacts and identifies mitigation measures within each of these three areas. The impact analysis takes into account the different expectations for development within the areas, in the context of existing and proposed UAGP policies. For each impact identified as not being mitigated below a level of significance by UAGP or other policies, there is a corresponding mitigation measure, when feasible.

The policies of the UAGP help to mitigate many of its environmental impacts and incorporate the mitigation measures identified in the original Master EIR prepared in 1995. All of these policies remain in effect, except as noted, forming the baseline for environmental analysis in 2007.

E. DESCRIPTION OF THE MASTER ENVIRONMENTAL IMPACT REPORT

This Master EIR updates the City’s 2003 Master EIR and analyzes several specific, City-initiated amendments to the UAGP. The Master EIR will provide the basis for environmental assessments of future projects that are within its scope.

Changes to the Master EIR include:

1. New mitigation measures addressing impacts that are new or changed from 1995. The mitigation measures identified in the 2003 Master EIR have been incorporated into the UAGP and are identified as policies in place in the Master EIR. These UAGP policies are written out in the policy sections of the Master EIR and given an identification number for ease of reference. They are referenced by that number in the impact sections. In addition, each policy contains a citation to its location in the UAGP so that it may be readily applied to the consideration of later projects.
2. Because the Master EIR addresses an adopted UAGP, its alternatives do not include alternatives to the UAGP itself. The alternatives included in the Master EIR would reduce some of the significant impacts of the proposed UAGP roadway amendments.
3. The Master EIR is optimized for use in conjunction with initial studies for future activities that are within its scope. This will help meet the goal of streamlining later environmental analysis.

Chapter IV

Environmental Setting

The following describes the physical environmental conditions within the Modesto planning area as they existed when the notice of preparation (NOP) was published for this master environmental impact report (Master EIR). The environmental setting constitutes the baseline physical conditions against which the impacts of the *City of Modesto Urban Area General Plan* (UAGP) and amendments will be measured.

A. REGIONAL SETTING

Modesto is located in Stanislaus County in the central San Joaquin Valley, approximately 95 miles east of San Francisco and 80 miles south of Sacramento (see Figure III-1). The Tuolumne River runs along the southern edge of the city, and the Stanislaus River runs roughly parallel to the northern boundary of Modesto's urban area. Modesto is intersected by State Route (SR) 99 along the north-south axis and SR 132 along the east-west axis. In a larger context, the county is bounded by San Joaquin County to the north; Calaveras, Tuolumne, and Mariposa Counties to the east; Merced County to the south; and Santa Clara and Alameda Counties to the west.

Before 1960, most of Stanislaus County's population lived in the unincorporated areas. Today the population of the nine incorporated cities is more than three times that of the unincorporated area (California Department of Finance 2006a). While the county's economic base remains predominantly agricultural, its economy is diversifying. As housing prices have increased in the Silicon Valley, Bay Area workers seeking affordable housing have moved to the Central Valley. From July 1, 2002, to July 1, 2006, the population of Stanislaus County is estimated to have increased by more than 8%, to 519,276 residents (California Department of Finance 2006b). Because many of these new residents continue to work in the Bay Area, traffic along the county's major regional connectors, SR 99, SR 132, and Interstate 5 (I-5), has increased noticeably. Stanislaus County was California's sixth most productive agricultural county in 2004 and 2005. Despite the increasing pressures of urbanization, the agricultural output of the county remains steady over the long term and in 2005 totaled approximately \$1.98 billion (California Department of Food and Agriculture 2006).

B. LOCAL SETTING

Modesto is the Stanislaus County seat and, with an estimated 2006 population of 208,107, is the largest city in the county (California Department of Finance 2006a). Modesto is a charter city organized under a council-manager structure. The council is composed of six members and a separately elected mayor who serve staggered, four-year terms.

The city has experienced a rapid growth rate, with an average yearly increase of approximately 2% between 2002 and 2006. The city has added approximately 40,171 residents in that period (California Department of Finance 2006b). This growth has changed Modesto from a small, agriculturally based community in the 1950s into a medium-sized metropolitan hub with a substantial agricultural economy today.

Modesto's economy long has had a substantial basis in food processing. Some of the community's largest employers are E.&J. Gallo Winery, Signature Fruit Company, Del Monte Foods, Stanislaus Food Products, Foster Farms, Frito-Lay, and several independent food processors (City of Modesto 2007a).

C. RELATIONSHIP TO REGIONAL AND LOCAL PLANS

The UAGP exists in the context of other regional and local plans that address the physical environment. The relationships of each to the UAGP are discussed briefly below.

1. Stanislaus County

a. General Plan

The *Stanislaus County General Plan* (County General Plan) applies to the unincorporated lands surrounding Modesto, including lands within the City of Modesto's (City's) sphere of influence. It guides Stanislaus County's (County's) land use and development decisions. The *Salida Community Plan*, adopted by the Stanislaus County Board of Supervisors in August 2007 in response to a proposed ballot initiative, establishes land use policies for the Salida area northwest of the Modesto City limits on both sides of SR 99. The Salida Community Plan covers nearly 3,400 acres, including the existing community of Salida, and provides for future mixed residential, commercial, business park, and planned industrial land uses. Existing land uses consist of residential subdivisions, with commercial development located along SR 99. Pending the availability of financing to build the necessary infrastructure to support these uses, the Salida Community Plan proposes substantial business park and planned industrial development north of the City limits. This is similar in nature to the type of development identified in the City's Salida Community Planning District.

b. County Integrated Waste Management Plan

The County's integrated waste management plan (IWMP) is a plan for the disposal of solid waste generated within the county. The IWMP addresses recycling, source reduction, household hazardous wastes, landfill siting, and County programs aimed at meeting statewide goals for solid waste disposal. Modesto has adopted source reduction and recycling, and household hazardous waste elements contained in the IWMP.

2. Stanislaus County Local Agency Formation Commission

State law established the Stanislaus County Local Agency Formation Commission (LAFCo) to administer the local government reorganization process. This includes the incorporation of new cities, the formation of special districts, annexations to cities and special districts, and the establishment of spheres of influence for all cities and special districts. The LAFCo is responsible for the orderly provision of services and the conservation of agricultural and open-space lands. It is composed of elected officials from the County and its cities, as well as members at large. The LAFCo decides whether land is to be annexed to a city and which agency (i.e., the county, the city, or a special district) will provide services to newly annexed areas.

3. City of Ceres

The City of Ceres is located directly south of Modesto. Its sphere of influence abuts the Modesto planning area. Ceres has adopted its own general plan that guides development within the city. The County regulates land use in the unincorporated areas surrounding Ceres.

4. City of Riverbank

The City of Riverbank is located directly north of Modesto. Its sphere of influence abuts the Modesto planning area. Riverbank has adopted its own general plan that guides development within the city. The County regulates land use in the unincorporated areas surrounding Riverbank.

5. San Joaquin Valley Air Pollution Control District

The San Joaquin Valley Air Pollution Control District (SJVAPCD) regulates air quality within the San Joaquin Valley, from Stockton to Bakersfield. At the present time, the U.S. Environmental Protection Agency (EPA) has classified Stanislaus County as an extreme nonattainment area for the 1-hour ozone standard and as a serious nonattainment area for the 8-hour ozone standard. However, the EPA revoked the 1-hour ozone standard on June 15, 2005, and Stanislaus County is no longer subject to it. For the carbon monoxide (CO) standard, the EPA has classified Modesto as a moderate maintenance area (12.7 parts per million [ppm] or less). The rest of Stanislaus County is classified as an unclassified/attainment area. The EPA has classified Stanislaus County as a serious nonattainment area for particulate matter 10 microns or less in diameter (PM10) and a nonattainment area for particulate matter 2.5 microns or less in diameter (PM2.5).

The California Air Resources Board (ARB) has classified Stanislaus County as a severe nonattainment area for the 1-hour ozone standard, an attainment area for the CO standard, and a nonattainment area for the PM10 and PM2.5 standards.

The SJVAPCD adopts an air pollution control plan, emissions rules, and other regulations to ensure that air quality within its region will meet state and federal clean air standards. The SJVAPCD's rules affect individual businesses and activities seeking permits from the SJVAPCD, but it has no direct land-use powers. The SJVAPCD also reviews the regional transportation plan (RTP) for conformity with air quality standards.

6. Stanislaus Council of Governments

a. Regional Transportation Plan

The Stanislaus Council of Governments (StanCOG) is the region's transportation planning agency and prepares the RTP (Government Code Section 65080 et seq.). The RTP is the basis for state and federal funding of transportation improvements. The RTP describes the proposed priority transportation projects, which are programmed into the State Transportation Improvement Program (STIP) to receive appropriated state dollars. Stanislaus County's RTP projects include roads, mass transit, and pedestrian and bicycle facilities. The RTP also describes the region's transportation objectives and policies. It contains an action element

describing the programs that will implement the plan, as well as the financial element describing the cost of plan implementation.

Both the RTP and the STIP must conform to the federal 1990 Clean Air Act (CAA) Amendments before federal funding can be allocated to listed projects under the Federal Transportation Improvement Program (FTIP). All transportation projects anticipating non-local funding sources and undertaken by the City must be identified in the RTP in order to receive state and federal funds. StanCOG adopted its current RTP in 2001 and updated it in 2004; the most recent STIP was adopted in 2006.

b. Congestion Management Program

State law requires a congestion management program (CMP) to be prepared for each county with an urbanized area (Government Code Section 65088 et seq.). StanCOG adopted this program in 1995. The CMP is a component of the RTP's action element, establishing programs for mitigating the traffic impacts of new development. The CMP identifies major roads that will be monitored for compliance with adopted level of service (LOS) standards. The CMP network within Stanislaus County consists of SR 4, SR 33, SR 99, SR 108, SR 120, SR 132, SR 165, SR 219, and I-5. The LOS standards established by the CMP are LOS D (the average stopped delay per vehicle is greater than 25 seconds and less than or equal to 40 seconds) within urban spheres and LOS C (the average stopped delay per vehicle is greater than 15 seconds and less than or equal to 25 seconds) outside the spheres, with some exceptions. The failure of a city or county to comply with the CMP can lead to state and federal transportation funds being withheld. LOS thresholds are discussed in detail in Section V-1.

D. OTHER REGULATORY AGENCIES

1. State Agencies

a. California Department of Fish and Game

The California Department of Fish and Game (DFG) protects California plants and wildlife under the California Endangered Species Act (CESA) (Fish and Game Code Section 2080 et seq.). Actions that may result in the "taking" of a threatened or endangered species are banned under CESA, unless the DFG issues an incidental take permit. The permit is based on the finding that the take will be mitigated fully. The DFG also regulates activities that may divert, obstruct, or change a natural flow or bed of any river, stream, or lake through its Lake and Streambed Alteration Program (Fish and Game Code Section 1600 et seq.). No such activities that may substantially adversely affect existing fish or wildlife resources are allowed without a Lake or Streambed Alteration Agreement from the DFG. State-listed species considered to inhabit the Modesto area are identified in Section V-7 of this Master EIR.

b. State Lands Commission

The State Lands Commission manages California's sovereign lands, including lands beneath the beds of navigable rivers (Division 6 of the Public Resources Code [PRC]). No individual or public agency may undertake development activities below the normal low-water mark of the rivers under their jurisdiction without a permit or lease from the commission. Uses are limited to public purposes consistent with the Public Trust Doctrine, including water-dependent commerce and navigation, environmental preservation, and scientific study.

c. State Reclamation Board

The State Reclamation Board within the California Department of Water Resources regulates activities on levees and floodways that are maintained by the state or local reclamation districts along the major rivers of the Central Valley (California Water Code Sections 8534, 8608, and 8710–8723). This includes portions of the Tuolumne River. A permit from the State Reclamation Board is required before any development activity may take place on or near the levees.

d. Central Valley Regional Water Quality Control Board

The Central Valley Regional Water Quality Control Board (Central Valley RWQCB) is responsible for protecting surface water quality within the region under authority of state and federal law. The Central Valley RWQCB has prepared a basin plan that examines water quality within the valley and establishes water quality objectives. The basin plan is updated every 3 years. The Central Valley RWQCB establishes discharge requirements for point sources and regulates such discharges by administering the National Pollutant Discharge Elimination System (NPDES) program for both point and non-point sources, including stormwater runoff. The Central Valley RWQCB regulates public and private activities to minimize impacts on surface water quality. The Central Valley RWQCB also issues clean water certifications or waivers under Section 401 of the Clean Water Act (CWA).

e. California Department of Public Health

The Division of Drinking Water and Environmental Management of the California Department of Public Health (DPH) is responsible for the regulation and permitting of domestic water supply facilities. The DPH must ensure that domestic water meets state standards for quality. Modesto's water system is operated under permit from the DPH. Concentrations of nitrates and uranium have exceeded allowable levels in some City wells, requiring the wells' withdrawal from service. Because the City is pursuing future recycled water use as part of the UAGP, the DPH, along with Title 17 and Title 22 of the California Code of Regulations, will regulate the use of treated recycled water.

f. California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for the planning, construction, operation, and maintenance of state highways. Caltrans' jurisdiction does not encroach upon local streets. However, Caltrans reviews many local projects as part of the California Environmental Quality Act (CEQA) process or in the event that local transportation projects will be or are funded federally through its district Local Assistance offices. Similarly, construction projects that do not involve state or federal funding but will encroach onto state or federal highways are subject to review and the issuance of encroachment permits from Caltrans. Caltrans' concern carries over to projects that would affect state highway congestion and that do not require encroachment permits. It wants to ensure that improvements to mainline highways that may be needed as a result of development projects will be funded. This may include fair share impact fees.

As discussed earlier, traffic from increased population during the planning period will affect SR 99, SR 108, SR 132, and SR 219.

g. State Office of Historic Preservation

The State Historic Preservation Officer (SHPO) is responsible under state law for maintaining the California Register of Historical Resources (CRHR). The SHPO is consulted whenever a federal action may affect historical resources. The SHPO also takes part in project consultation under CEQA and comments to lead agencies on the potential impacts of proposed projects on historical resources.

2. Federal Agencies

a. Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program. Cities that participate in the program, such as Modesto, qualify for flood insurance within areas subject to flood hazard when they enact regulations to ensure that new development will be elevated above flood level and that other actions are taken to minimize flood damage. FEMA prepares and publishes Flood Insurance Rate Maps (FIRMs), which identify the location of 100-year floodplains (i.e., areas for which the statistical probability of flooding is 1% in any given year). Three FIRMs for the City of Modesto were updated on May 7, 2001 (Federal Emergency Management Agency 2001a, 2001b, 2001c).

b. U.S. Army Corps of Engineers

The U.S. Army Corps of Engineers (USACE) regulates the filling of *wetlands* and *waters of the United States* by public agencies and individuals under Section 404 of the federal CWA. A permit must be obtained from the USACE before fill or discharge will be allowed. A USACE permit application also triggers review under the federal Endangered Species Act (ESA) and other sections of the CWA. A streamlined procedure for considering minor fills that conform to previously approved classes of activity exists under the nationwide permit

process. Projects that do not qualify for nationwide permits will be subject to an individual permit. Individual permit applications trigger the National Environmental Policy Act (NEPA) as well as concurrent consultations under the ESA, the CWA, the National Historic Preservation Act (NHPA), and other federal regulations.

c. U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) is responsible for administering and enforcing the ESA for federally listed plants, wildlife, and non-anadromous fish species. Actions that may result in the take of a threatened or endangered species or the destruction of habitat are regulated by the USFWS. The USFWS commonly requires development activities to be revised to avoid listed species and habitat or, when avoidance is infeasible, to provide compensation habitat elsewhere.

d. National Marine Fisheries Service

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) is responsible for administering and monitoring compliance with the ESA for federally listed anadromous fish species and conducting an analysis of essential fish habitat (EFH) for Pacific salmon, pursuant to the Magnuson-Stevens Fishery Conservation and Management Act. Public and private activities with the potential to affect ESA-listed species and EFH are subject to review and permitting by NMFS.

Section 1

Traffic and Circulation

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect traffic and circulation. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The Modesto planning area is shown in Figure V-1-1.

2. Study Area for Cumulative Impacts

Stanislaus County (County) is defined as the cumulative impact study area.

3. Existing Physical Conditions in the Study Area

a. Existing Transportation System

Modesto is the demographic and commercial hub of Stanislaus County. Regional roadway access to Modesto is provided by State Route (SR) 99, SR 108, SR 132, and SR 219. SR 99 runs north to south through the Central Valley from Red Bluff to Bakersfield. Through Stanislaus County, it is a freeway with access limited to interchanges. SR 132 is an east-west link between SR 49 and Interstate 580. SR 108 extends from Modesto across Sonora Pass to the eastern side of the Sierra Nevada (Sonora Pass is closed during the winter because of snow). SR 132 and SR 108 are essentially arterial roadways within Modesto and have direct access to adjoining parcels. SR 219 runs east to west along Kiernan Avenue north of Modesto to connect SR 108 and SR 99.

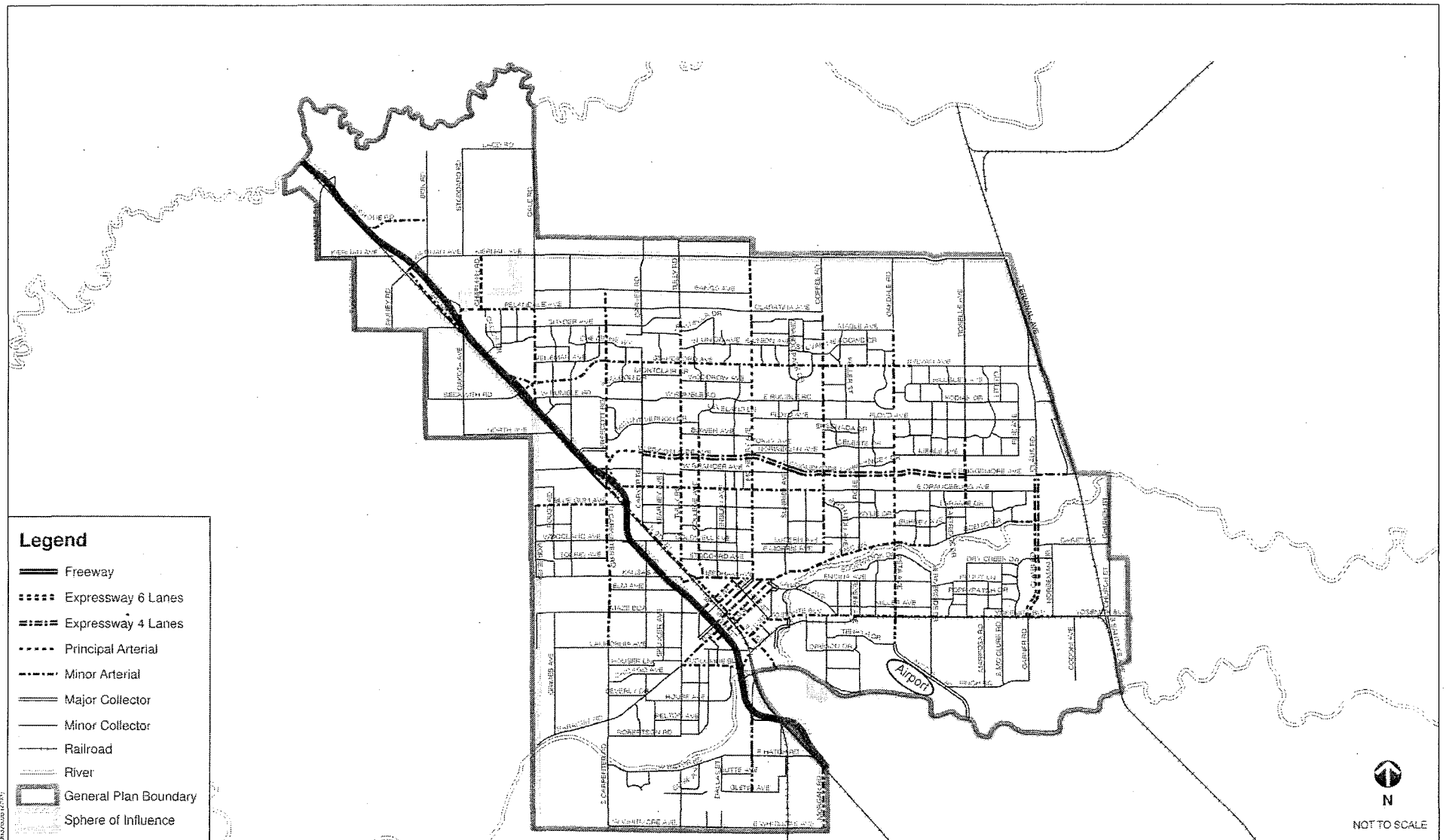
The City of Modesto (City) categorizes the roadways that constitute its circulation network as freeways, expressways, arterial streets, collector streets, and local streets. Figure V-1-1 identifies these roadways; streets not otherwise identified on the figure are local streets. Roadway functional classifications are described in Chapter V of the UAGP and are summarized as follows:

1. Freeways: These are intended for long-range interregional travel with access limited to specific interchanges.
2. Expressways: These are high-capacity travel corridors with limited access at half-mile to 1-mile intervals depending on the expressway classification, with traffic signals at major intersections. City policy provides for the case-by-case consideration of more frequent access when there are demonstrable economic reasons, unusually restricted access, or a need for access to police and fire stations. In such situations, the individual access will be designed to provide safe ingress and egress without degrading the carrying capacity, flow, and efficiency of the expressway.
3. Arterial streets: These are intermediate capacity travel corridors primarily intended to serve major movements between different land uses or different parts of the city. Access to arterial streets is ideally limited to major traffic generators, intersections with expressways, and collector streets. Within the Baseline Developed Area, arterial streets also provide considerable direct access to abutting properties and local streets.
4. Collector streets: These connect local streets with arterial streets. The preferred design is to limit their length to that necessary and to discourage their use for through or regional traffic. Collectors usually provide a high level of direct access to abutting properties.
5. Residential/local streets: These two-lane, low-volume streets have the exclusive function of providing access to abutting properties and connecting to higher-order roadways.

Modesto is served by local and intercity bus service, intercity rail service, a bicycle circulation network, and scheduled air carrier service, in addition to the city's road system. Bus service includes the Modesto Area Express (MAX), Modesto Dial-A-Ride, Stanislaus Regional Transit (StaRT), and Greyhound. Train service includes Amtrak and Altamont Commuter Express (ACE) connections. Air travel is provided at the Modesto City-County Airport.

MAX provides daily, regularly scheduled, fixed-route public bus service within Modesto. Service generally is provided on arterial and collector roadways, with most routes connecting to downtown Modesto. There are two bus transfer facilities: one at Vintage Faire mall and the other in downtown Modesto. Buses are equipped with bicycle racks and wheelchair lifts. Evening service is limited. MAX also provides connecting service to Amtrak, ACE, and the Dublin/Pleasanton Bay Area Rapid Transit District (BART) station. Modesto Dial-A-Ride provides door-to-door public transit on an on-call basis within Modesto for elderly and disabled individuals. It also provides evening and Sunday service to the general public. StaRT provides intercity, fixed-route bus service Monday through Saturday between Modesto and Turlock, Riverbank, Oakdale, Gustine, Newman, Westley, and Patterson. StaRT also provides "runabout" service that combines designated time points and curb-to-curb service to the general public, and a dial-a-ride service. Greyhound provides intercity bus service to points throughout the state and nation. The Greyhound bus station is located at 1001 9th Street in downtown Modesto.

Amtrak provides intercity passenger rail service from Modesto to the Bay Area, Sacramento, Los Angeles, and points beyond. Amtrak operates six "San Joaquin" trains daily, offering round-trip travel between Sacramento and Los Angeles from the station located on the eastern edge of Modesto at 1700 Held Drive. MAX offers daily scheduled bus service to the station.



ACE operates four daily heavy rail commuter trains from Stockton to San Jose, with Central Valley stops in Lathrop/Manteca and Tracy. MAX provides three morning and three evening direct buses from Vintage Faire's park-and-ride lot to the Lathrop ACE station. MAX also runs two nonstop buses from Vintage Faire to the Dublin/Pleasanton BART station each morning and evening. Modesto is served by the Union Pacific and Burlington Northern Railroads, which have main lines passing through Modesto. These railroads provide freight service to the San Joaquin Valley and beyond.

Modesto has three types of improved bikeways: Class I, Class II, and Class III. Class I bikeways are paved paths that are separated from city streets. No motor vehicles are allowed on Class I bikeways. Class II bikeways are striped lanes on major city streets. Class III bikeways are on-street routes identified by "bicycle route" signs. Figure V-1-2 shows the existing and proposed bicycle facilities in Modesto from the *Modesto Non-Motorized Transportation Master Plan* (Alta Planning and Design 2006).

The Modesto City-County Airport is a commercial and general aviation airport owned jointly by the City and the County, and operated by the City. The airport has two runways: a 5,911-foot air carrier runway and a 3,459-foot general aviation runway. The Modesto City-County Airport is the base for approximately 190 general aviation aircraft, including corporate jets. Airport services include a passenger terminal and parking, hangars, aircraft fueling and maintenance, aircraft charters, and flying schools. United Express/SkyWest Airlines provides scheduled commercial airline service. United Express makes five daily round trips each way from Modesto's passenger terminal to San Francisco International Airport and four daily round trips each way to Los Angeles International Airport (LAX). Two car rental agencies operate from the airport.

b. Existing Travel Behavior

Census data were reviewed to determine existing travel behavior in Modesto. Data from 1990 were compared with data from the most recent census in 2000, as summarized in Table V-1-1. As of 2000, approximately 93 percent of Modesto residents commuted via private automobile (single occupant and carpool), relatively unchanged from 1990. The average travel time to work increased slightly from 1990 to 2000, from 25 minutes in 1990 to 27 minutes in 2000. The number of people who reside and work in Modesto declined from 61 percent in 1990 to 57 percent in 2000.

Table V-1-1. Changes in Commute Travel Demand for City Residents

Travel Characteristic	1990	2000
Travel Mode		
Single-occupant auto	79.2%	78.9%
Carpool	13.6%	13.7%
Public transit	0.9%	1.3%
Bicycling/walking	2.8%	2.5%
Other means	1.2%	0.8%
Work at home	2.4%	2.9%
Other Commute-Related Data		
Percentage who work in Modesto	61%	57%
Percentage who work outside Stanislaus County	17%	19%
Percentage who leave for work between midnight and 7 AM	32%	33%
Percentage who leave for work between 7 AM and 9 AM	46%	43%
Average travel time to work	25 minutes	27 minutes

Table V-1-2 compares the commute characteristics of Modesto residents with those of Stanislaus County, California, and the United States as a whole. Approximately 92 percent of Modesto and Stanislaus County residents commute via automobile, compared with 86 percent within California and 88 percent within the United States. Public transit usage is lower in Modesto and Stanislaus County, although walking/bicycling rates are similar for all geographic categories. The percentage of workers leaving their homes for work between midnight and 7 AM is higher, and the percentage of workers leaving their homes between 7 and 9 AM is lower for residents of Modesto and Stanislaus County, although average commute times are similar across the state and the nation. Fewer residents of Modesto commute outside their county of residence than do residents elsewhere in the country.

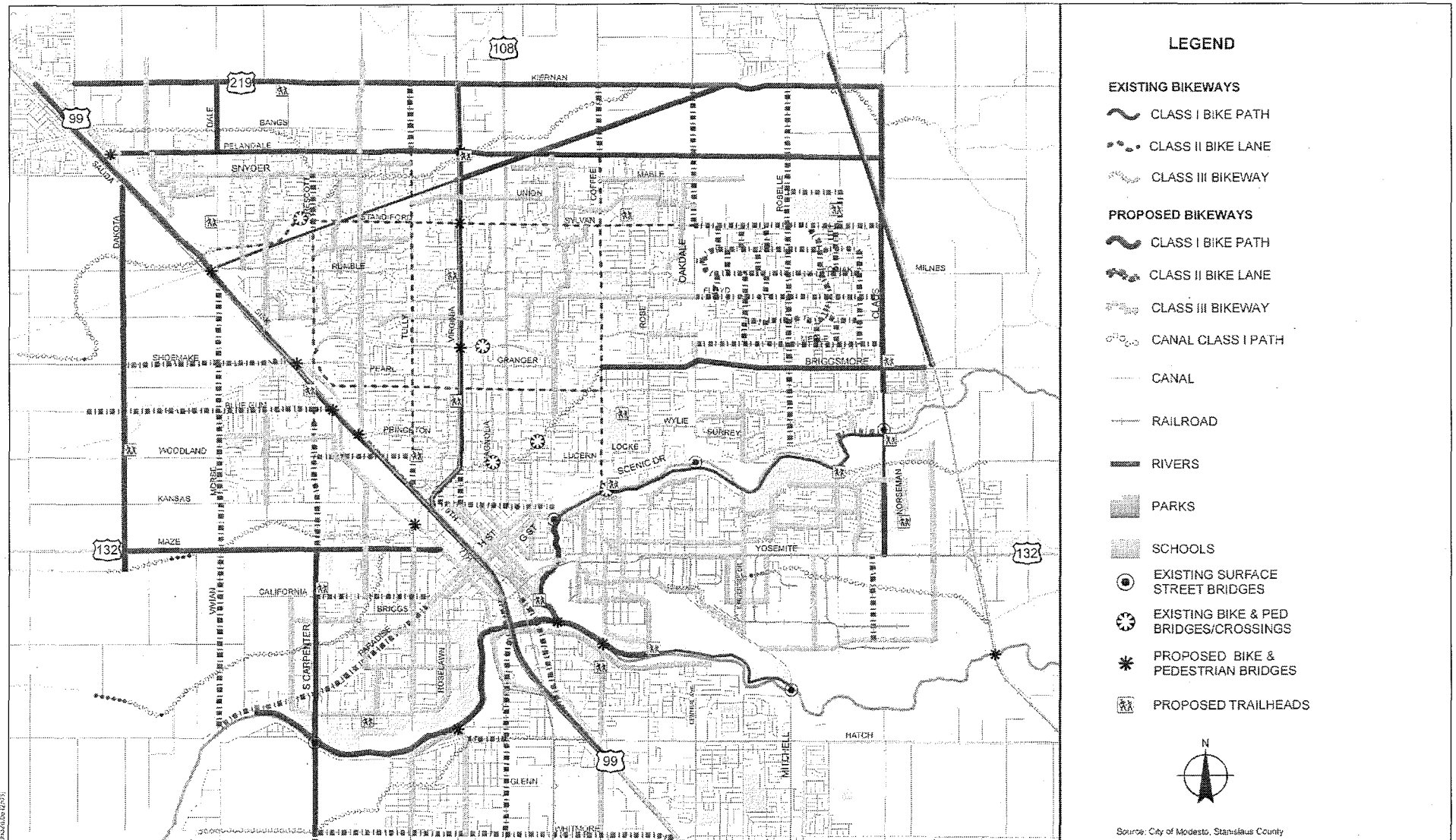


Table V-1-2. 2000 Census Journey-to-Work Results

Travel Characteristics	Modesto	Stanislaus County	California	United States
Commute Mode Choice				
Single-occupant auto	78.9%	76.9%	71.8%	75.7%
Carpool	13.7%	15.0%	14.5%	12.2%
Public transit	1.3%	1.0%	5.1%	4.7%
Bicycling/walking	2.5%	3.1%	3.7%	3.3%
Other means	0.8%	0.8%	1.0%	0.8%
Work at home	2.9%	3.2%	3.8%	3.3%
Other Commute-Related Data				
Percentage who work outside county of residence	19%	21%	17%	27%
Percentage who leave for work between midnight and 7 AM	33%	36%	32%	31%
Percentage who leave for work between 7 and 9 AM	43%	41%	45%	47%
Average travel time to work	27.0 minutes	28.0 minutes	27.7 minutes	25.5 minutes
Source: U.S. Census Bureau 2002.				

c. Existing Roadway Segment Operations

The private automobile is the predominant travel mode in Modesto. Roadway operations are described in terms of level of service (LOS). LOS is a qualitative description of a driver's experience and includes travel speed, delays, and ease of vehicle maneuvering. The LOS for roadway segments in Modesto is evaluated by comparing the traffic volume with its vehicle capacity (the volume-to-capacity ratio) and correlating the result to a letter grade to represent the levels of congestion, as follows.

1. LOS A: free flow, low traffic volumes, and drivers can maintain their desired speed with little or no delay. Volume-to-capacity ratio: 0.6 or less.
2. LOS B: stable flow, operating speeds beginning to be restricted by traffic conditions. Volume-to-capacity ratio: 0.61 to 0.7.
3. LOS C: stable flow, but speeds and maneuverability are more closely controlled by higher volumes. Volume-to-capacity ratio: 0.71 to 0.8.
4. LOS D: approaching unstable flow; tolerable operating speeds which are, however, considerably affected by operating conditions. Volume-to-capacity ratio: 0.81 to 0.9.
5. LOS E: unstable flow with yet lower operating speeds and stoppages of momentary duration. Volume-to-capacity ratio: 0.91 to 1.0.
6. LOS F: stopped flow, which may occur for short or long periods. These conditions usually result when vehicles are blocked by a restriction downstream. Volume-to-capacity ratio: greater than 1.0.

Table V-1-3 presents the per-lane capacities based on roadway type used to evaluate roadway operations in Modesto.

Table V-1-3. Per-Lane Roadway Segment Capacities

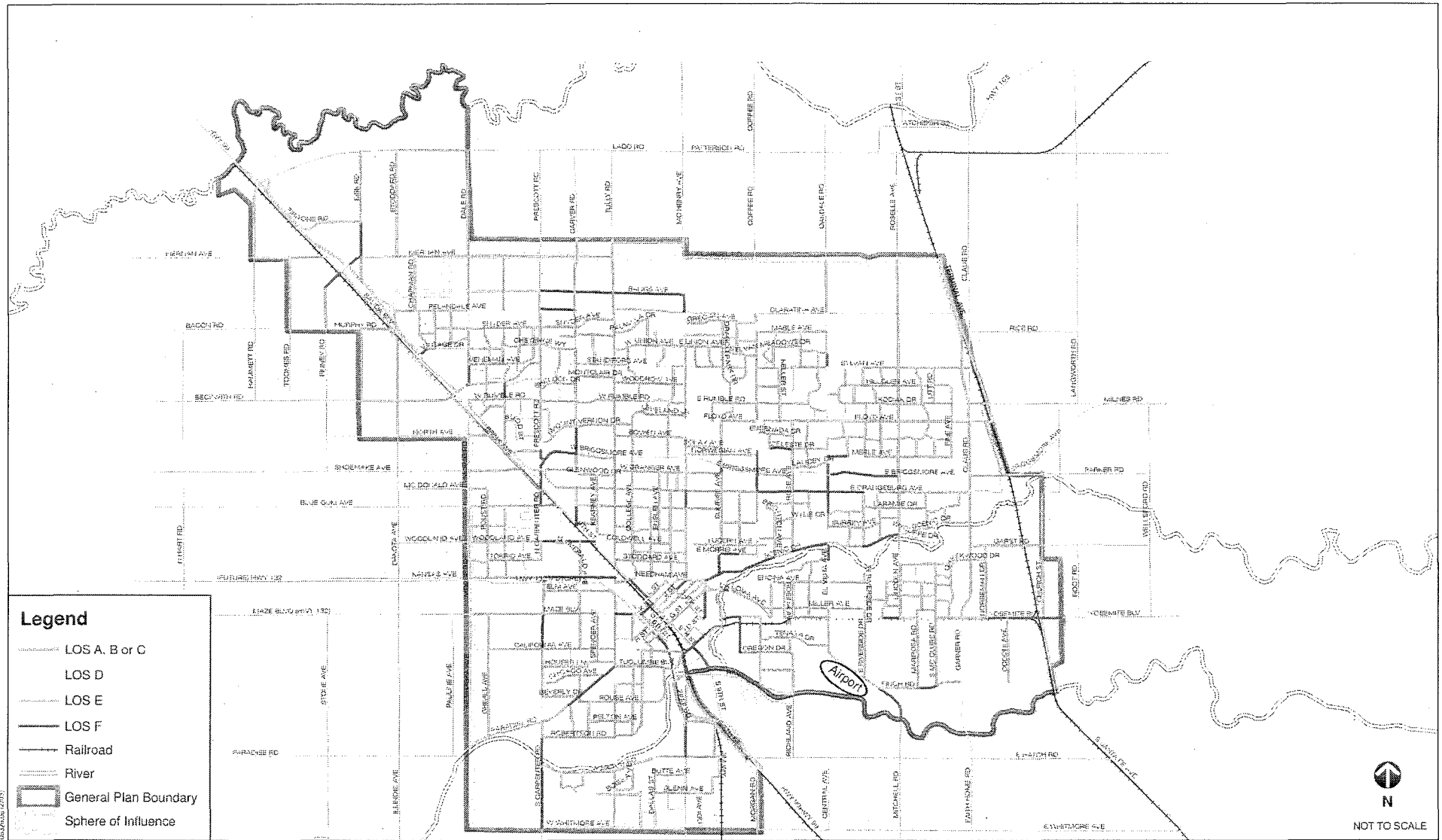
Type of Roadway Segment	Hourly Capacity ^a	Daily Capacity ^b
Freeway mainline	2,000	25,000
Expressway (Class A)	1,500	18,750
Expressway (Class B)	1,250	15,625
Expressway (Class C)	1,000	12,500
Arterial (signalized)	750	9,375
Arterial (unsignalized)	1,000	12,500
Collector (signalized)	500	6,250
Collector (unsignalized)	750	9,375
Rural road	900	11,250

^a Vehicles per lane per hour.

^b Vehicles per lane per day. Peak hour capacity is assumed to be 8 percent of daily capacity.

Source: City of Modesto 2003a.

Existing PM peak-hour and daily roadway segment LOS were evaluated for roadways within the General Plan boundary area. The service levels were calculated using the baseline 2005 Transportation Planning Partnership Group (TPPG) countywide travel demand model (TPPG Model) that was validated to existing (2005) conditions. TPPG Model validation documentation is provided in Appendix A. The results are summarized in Figures V-1-3a and V-1-3b for PM peak-hour and daily conditions. The 2003 UAGP strives to maintain LOS D operations. The arterial, expressway, and freeway segments operating at LOS E and F on a daily basis outside of the downtown area are summarized in Table V-1-4. Those operating at LOS E or F on a PM peak-hour basis are presented in the appendix.



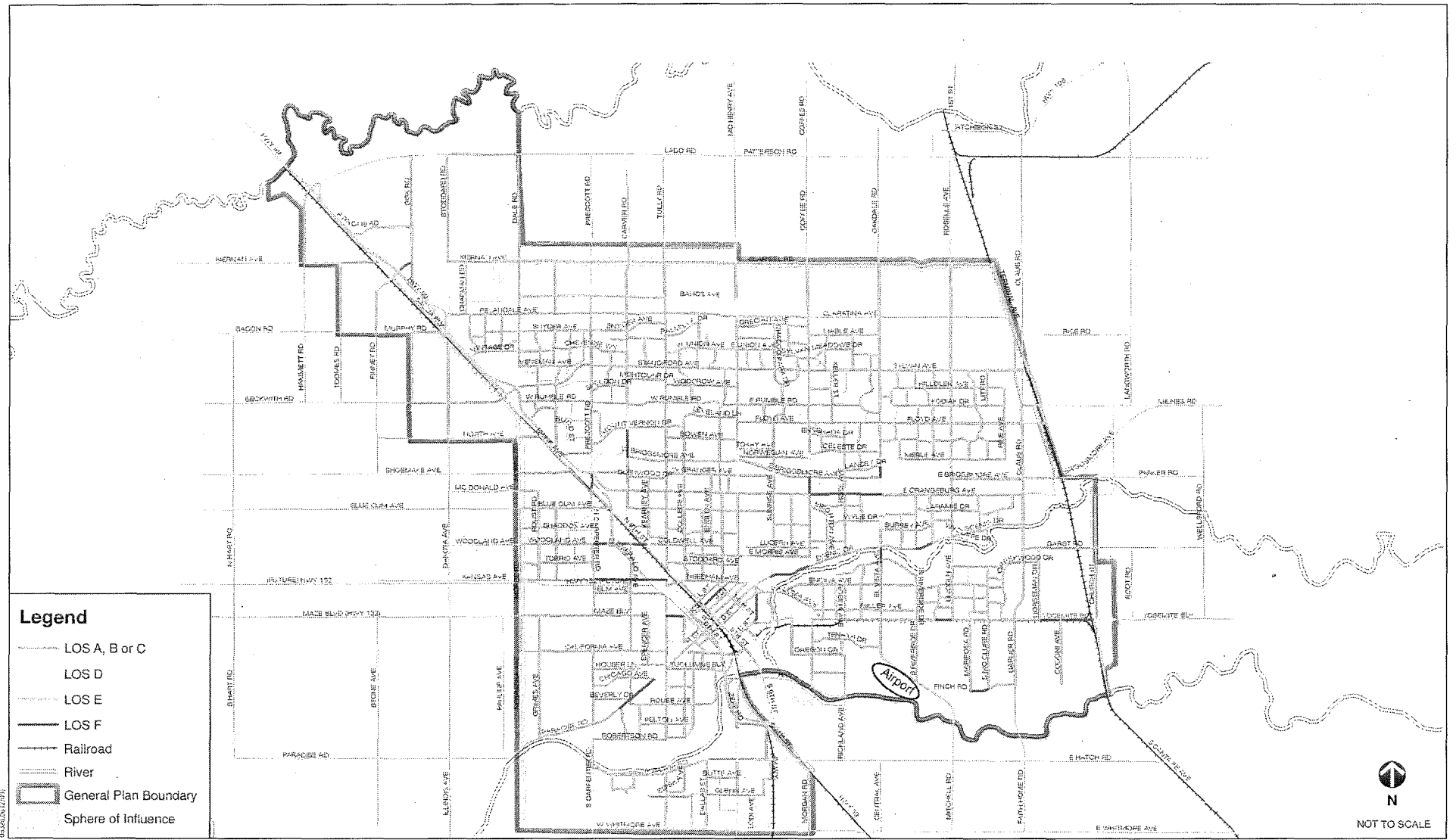


Figure V-1-3b
Year 2005 Daily Roadway Segment Level of Service

Table V-1-4. Roadway Segments with Existing (2005) Daily Level of Service E or F

Roadway Segment	From	To	Daily LOS
1. Briggsmore Avenue/Carpenter Road	Sisk Road	Bluegum Avenue	E/F
2. Carpenter Road	Robertson Road	Hatch Road	E
3. Carver Road	Mount Vernon Drive	Briggsmore Avenue	F
4. Coffee Road	Briggsmore Avenue	Orangeburg Avenue	F
5. El Vista Avenue	Scenic Drive	Edgebrook Drive	F
6. Finch Road	Mariposa Road	McClure Road	F
7. Kansas Avenue	Carpenter Road	SR 99 southbound ramps	F
8. Kiernan Avenue	SR 99 northbound ramps	Sisk Road	F
9. La Loma Avenue	Morton Boulevard	Buena Vista Drive	E/F
10. Maze Boulevard	Martin Luther King Drive	Washington Street	F
11. McHenry Avenue	Orangeburg Avenue	Downey Avenue	E
12. Mitchell Road	Finch Drive	Hatch Road	E
13. Oakdale Road	Lancey Drive	Briggsmore Avenue	E/F
14. Orangeburg Avenue	Coffee Road	Oakdale Road	F
15. Paradise Avenue	Pine Tree Lane	Chicago Avenue	F
16. Scenic Drive	Burney Street	Coffee Road	E/F
17. Scenic Drive	Sonoma Avenue	Lakewood Avenue	E/F
18. Sisk Road	Pirrone Road	Kiernan Avenue	F
19. Standiford Avenue	Sisk Road	Dale Road	E
20. SR 99 northbound	Crows Landing Road	H Street	E
21. SR 99 southbound	H Street	Crows Landing Road	E
22. Vintage Drive	Sisk Road	Gagos Drive	F
23. Woodland Avenue/Coldwell Avenue	Carpenter Road	Kearney Avenue	F
24. Yosemite Boulevard	Morton Boulevard	Santa Rosa Avenue	E
25. Yosemite Boulevard	Capistrano Drive	Lincoln Avenue	F
26. Yosemite Boulevard	Norseman Drive	Santa Fe Avenue	E/F

Source: Transportation Planning Partnership Group Model.

d. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local (County and City) policies and summaries of policies that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects

analyzed under this Master EIR (e.g., Traffic and Circulation policies are designated as TC- X , where X is the discrete number).

(1) Federal Policies

The federal government has a variety of funding programs for transportation, including funds for highways, roads, bridges, transit, transportation planning, bicycle and pedestrian facilities, and aviation facilities. In large part, federal programs channel funding through the California Department of Transportation (Caltrans). Federal funding through the Transportation Equity Act for the 21st Century is available for mass transit, rail, transit facilities, carpool projects, parking, bicycle programs, safety, research and planning, and transportation control measures.

(2) State Policies

The state has delegated a great deal of authority for planning and prioritizing the funding of transportation projects to regional and local government. California law requires each regional transportation planning agency (RTPA) (the Stanislaus Council of Governments [StanCOG] here) to prepare a regional transportation plan (RTP) that identifies existing and future transportation demand and needs, and identifies means to meet those needs. The RTP is the long-range blueprint for funding transportation projects.

Working from the RTP, the RTPA must prepare a regional transportation improvement program (RTIP) that identifies and prioritizes individual transportation projects to be undertaken to meet regional needs. The projects must be analyzed sufficiently to justify their inclusion in the RTIP and to estimate their costs. The RTIP is forwarded to the California Transportation Commission for inclusion in the State Transportation Improvement Program (STIP), making individual projects eligible for federal and state transportation funding. State law now provides that 75 percent of the funds made available through the STIP must go to regional projects, and 25 percent is programmed for interregional improvements.

For the 20-year planning horizon, Caltrans' concept LOS for SR 99 is LOS C in rural areas and LOS D in urban/developed areas. An eight-lane SR 99 freeway will be needed to meet this objective. Auxiliary lanes also may be needed between some interchanges to provide peak-hour LOS D operations through the Modesto.

(3) Stanislaus Council of Governments Policies

The 2007 StanCOG RTP includes transportation projects such as highway and road construction, airports, alternative fuel vehicle acquisition, public transit, and bicycle paths (Stanislaus Council of Governments 2007). The RTP identifies a number of improvements within Modesto, including: improving SR 108 from the Modesto city limits to east of the City of Oakdale; improving SR 219 from SR 99 to SR 108; widening SR 132 from Riverside to Frazine/Codoni, east of SR 99; widening SR 132 to

expressway width from SR 99 to west of Dakota Avenue; and reconstructing the Pelandale Avenue/SR 99 interchange in north Modesto.

In addition to the RTP and RTIP discussed above, state law required StanCOG to prepare a congestion management program (CMP) that establishes LOS performance standards for state highways and principal arterials within the county. A CMP must contain the following components: an element defining the affected transportation system and LOS, a performance element evaluating the system's performance across several transportation modes, a travel demand element, a program for analyzing the impact of land use decisions, and a 7-year capital improvement program. In addition, under CMP law, local jurisdictions are required to prepare and implement a deficiency plan when congestion on a roadway segment exceeds the adopted LOS standard. The deficiency plan must identify the cause of the deficiency, improvements needed to cure the deficiency, and an action plan for implementing those solutions. Implementation of the CMP makes the County eligible to receive increased gasoline and diesel sales tax funds from the state.

StanCOG last prepared a CMP in 1995. In 1996, Assembly Bill (AB) 2419 was enacted. It allows counties with adopted CMPs to opt out of the CMP requirements with the approval of two-thirds of member agencies. StanCOG has opted out since. StanCOG monitors the regional transportation system through its function as an Areawide Clearinghouse under CEQA. Monitoring objectives include:

- a. seeking implementation of the policies and recommendations of the RTP, and
- b. implementing regional transportation priorities in a timely manner.

The RTP contains a variety of general objectives and policies that may relate to Modesto under given circumstances. These are provided below.

TC-1: Land Use Objective 2: Integrate transportation and land use planning with transportation system carrying-capacity.

Policy 2A: Promote a balance between land use and transportation decisions that will make Stanislaus communities more livable, attractive, and economically vibrant.

Policy 2B: Support the integration of Regional Transportation Plan policies and projects into local land use plans and projects. (StanCOG RTP)

TC-2: Land Use Objective 3: Create a transportation system that supports local land use plans.

Policy 3A: Promote the development of regional transportation improvements necessary to support local General Plans. (StanCOG RTP)

TC-3: Road Policy 2A: Support the development of an integrated Regional Expressway System.

Road Policy 2B: Promote improvements to reduce congestion and facilitate the movement of people and goods on regionally significant routes. (StanCOG RTP)

TC-4: Road Policy 3A: Ensure that local transportation design standards and land use planning anticipate the infrastructure and operational needs of trucks, rail, and air transportation. (StanCOG RTP)

- TC-5:** Road Objective 4: Construct a transportation system that supports the use of alternative transportation modes.
- Policy 4A: Support the roadway-related recommendations of the Regional Bicycle Action Plan.
- Policy 4B: Promote the development of a regional transportation system that facilitates travel by alternative transportation modes. (StanCOG RTP)
- TC-6:** Transit Objective 1: Maintain an efficient, reliable and attractive public transit system for the Stanislaus region.
- Policy 1A: Promote the maintenance of an efficient and well coordinated regional public transit system serving regional and interregional travel needs.
- Policy 1B: Maintain the operating effectiveness of the regional public transportation system as congestion worsens.
- Policy 1B.1: Incorporate advanced public transportation management practices and Intelligent Transportation System strategies into public transit operations.
- Policy 1E: Promote the integration of public transit systems with other modes of travel. (StanCOG RTP)
- TC-7:** Transit Objective 2: Implement a system of rail passenger services to facilitate intercity and interregional travel.
- Policy 2A: Support efforts to develop a rail passenger system to serve intercity and interregional travel needs for the Stanislaus region.
- Policy 2B: Evaluate extending the Altamont Commuter Express to the Stanislaus region.
- Policy 2C: Support the development of a California High Speed Rail corridor to better serve the Stanislaus region. (StanCOG RTP)
- TC-8:** Transit Policy 3A: Support the integration and coordination of rail and bus services to provide seamless connectivity between modes and service providers. (StanCOG RTP)
- TC-9:** Non-Motorized Travel Objective 1: Promote the development of a safe and convenient bicycle and pedestrian network linking neighborhoods to the regional system.
- Policy 1A: Facilitate the implementation of the regional network of bicycle facilities identified in the Regional Bicycle Action Plan.
- Policy 1B: Integrate the needs of pedestrians, bicyclists, and individuals with disabilities in local land use and transportation project approvals.
- Policy 1D: Seek ways to remove barriers to pedestrian and bicycle use and enhance the safety of the system. (StanCOG RTP)
- TC-10:** Aviation Objective 1: Develop an air transportation system responsive to local land use plans and capable of serving the growing air commerce, passenger and general aviation needs of the region.
- Policy 1A: Encourage the use of air as a transportation alternative for the movement of people and goods.
- Policy 1C: Ensure interface with ground transportation is adequate to serve the air transportation needs.

Policy 1D: Support implementation of safety measures for ground and air operations.

Policy 1E: Mitigate the impacts of aircraft noise and facility expansion on surrounding land uses. (StanCOG RTP)

(4) San Joaquin Valley Air Pollution Control District Policies

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has adopted a transportation control measure (TCM) plan intended to reduce vehicle trips, vehicle miles traveled, vehicle idling, and traffic congestion. This is an attempt by the SJVAPCD to address mobile-source emissions. The TCMs include programs for improved public transit, employer-based transportation management plans, traffic flow improvement programs that achieve emissions reductions, and programs to limit or restrict vehicle use in downtown areas. (San Joaquin Valley Air Pollution Control District 2005.) With the downgrading of the air basin's non-attainment status to "severe" in 2001, tighter controls over mobile emissions will be needed if the air pollution control district is to reduce smog levels to acceptable standards. The City's TCMs are listed in TC-21 below.

(5) Stanislaus County Policies

The County updated the Circulation Element of its county-wide general plan in 2006. The Circulation Element of the *Stanislaus County General Plan* (County General Plan) identifies the goals, policies, and implementation measures that ensure compatibility between planned land use, infrastructure, and transportation modes. The Circulation Element establishes policies applicable to unincorporated areas of the county. These relate to Modesto in that the City and County jurisdictions share common roads, and County policies in areas adjoining the city may affect city traffic patterns. The City and County may need to coordinate their policies in these areas.

Stanislaus County has approximately 3,471 miles of roads within its unincorporated area. It classifies these roads as follows.

- a. Highway/freeway: These are roadways serving large areas, with access restricted to interchanges at primary arterials.
- b. Expressway: Expressways provide for through-traffic movement, with limited direct access to abutting property. They are designed for four to six lanes of through traffic with not less than 110 feet of right-of-way width.
- c. Major: Major streets have a primary function of moving traffic, but unlike expressways they have a secondary function of land access. Major streets are generally two-lane streets (ultimately four- or six-lane) constructed on rights-of-way of 80 to 110 feet.
- d. Collector: Collectors serve a dual function by providing both land access and mobility for medium-length trips. Collectors serve as transition facilities, providing a medium LOS between high- and low-level systems. Most are two-lane roads with 60- to 90-foot rights-of-way.

- e. **Local:** Local streets provide direct access to adjacent development. Trip lengths are normally short, and traffic volumes are usually small. Local streets are two-lane streets with 50-foot or 60-foot rights-of-way. Urban streets serving 50 or fewer dwelling units when the neighborhood is fully developed shall be considered as local streets unless otherwise designated by the County Department of Public Works.
- f. **Minor:** This includes cul-de-sac and other dead-end streets that have 50 feet of right-of-way and that are no longer than 500 feet.
- g. **Private:** This classification includes agricultural access easements and is included primarily to conform to state-mandated standards for private access roads in the state responsibility area as designated by the California Department of Forestry and Fire Protection.

Stanislaus County policies:

TC-11: As a matter of policy, Stanislaus County strives to maintain LOS C or better on all roadways. (County General Plan, Circulation Element)

TC-12: Policy Two

Circulation systems shall be designed and maintained to promote safety and minimize traffic congestion.

Implementation Measures

1. The County shall maintain LOS C or better for all County roadways and intersections, except, within the sphere of influence of a city that has adopted a lower level of service standard, the City standard shall apply. ... [I]n no case shall the adopted LOS fall below LOS D.
2. The County will annually review and update its transportation funding mechanisms and, as necessary, adjust its traffic impact fee to ensure that adequate funds are collected from local, State, and federal sources to implement improvements required to maintain the County's level of service standard on all County roads.
3. The County will work with StanCOG and the cities to monitor the performance of the County's circulation system and implement improvements as required by the State-mandated Congestion Management Program.
4. The County will work with StanCOG and the cities to identify and secure funding for improvements to the regional and local circulation system.
5. The County shall evaluate the circulation system and recommend amendments a minimum of once every five years.
6. The County will work with staff of the nine cities, StanCOG and Caltrans to establish more coordinated standards and routes for Expressways, Majors, and Collectors that cross jurisdictional lines.
7. Within the spheres of influence of any city, roadway improvements, dedications, building setbacks and road reservations shall meet the development standards of the city consistent with the Spheres of Influence Policy in the Land Use Element of the General Plan, except in those areas subject to an individual city/county agreement.

8. Private roads in areas of the County protected by the California Department of Forestry and Fire Protection shall be designed consistent with the standards of that agency, the local fire protection district and the Department of Public Works.
9. Street and road standards proposed in any new development that differ from those established in the latest County's Standards and Specifications shall be approved by the Department of Public Works, and shall comply with nationally recognized standards.
10. Traffic control devices (e.g., traffic signals), traffic calming, and other transportation system management techniques shall be utilized to control the flow of traffic, improve traffic safety, and minimize delays. (County General Plan, Circulation Element)

TC-13: Goal Two

Provide a safe, comprehensive and coordinated transportation system that includes a broad range of transportation modes.

Policy Six

The County shall strive to reduce motor vehicle emissions and vehicle trips by encouraging the use of alternatives to the single occupant vehicle.

Implementation Measures

1. The use of alternative modes of transportation will continue to be encouraged by participating in programs to promote walking, bicycling, ridesharing, and transit use for commuting and recreation.
2. The County will continue to work with StanCOG, Caltrans, and the cities to identify and secure funding for the development and improvement of bikeways, pedestrian pathways, park-and-ride facilities, transit systems, and other alternatives to the single-occupant vehicle.
3. Facilities to support the use of, and transfer between, alternative modes of transportation (i.e., pedestrian, rideshare, bicycle, bus and train) shall be provided in new development.
4. A trip reduction and travel demand ordinance shall be developed to promote the use of alternative modes and ensure that adequate facilities are provided in new development to support the use of alternatives to the single-occupant vehicle.
5. The County will continue to work with the Stanislaus Council of Governments and the San Joaquin Valley Air Pollution Control District to develop and implement transportation control measures to improve air quality through reduction in vehicle trips and vehicle miles of travel.
6. Developers will construct or pay the cost of new pedestrian pathways, bikeways, rideshare facilities, transit amenities, and other improvements necessary to serve the development and to mitigate impacts to the existing circulation system caused by the development.
7. The County shall convert to clean fuels fleet vehicles when possible and pursue special grants and funding sources to facilitate this conversion. (County General Plan, Circulation Element)

TC-14: Policy Seven

Bikeways and pedestrian paths shall be designed to provide reasonable access from residential areas to major bicycle and pedestrian traffic destinations such as schools, recreation and transportation facilities, centers of employment, and shopping areas.

Implementation Measures

1. Bikeways shall be considered and implemented in accordance with the StanCOG Regional Bicycle Action Plan and adopted Community Plans or Specific Plans when constructing or improving the roadway system in the unincorporated area outside the spheres of influence of the cities.
2. Within the sphere of influence of a city, bikeways and pedestrian facilities and amenities shall be provided in accordance with the applicable city's general plan and development standards.
3. Facilities to safely move, and support the use of, bicycles, pedestrians, transit and ridesharing shall be considered and implemented in all new development and roadway construction.
4. Class I bicycle and multi-use paths, such as the "Highway 108 Scenic Corridor Multi-Purpose Trail Plan," shall be considered to provide connectivity between major origins-destinations or to major recreational areas when on-road provisions for bicycle traffic cannot be accommodated or no alternative roadway alignment provides adequate connectivity.
5. In conjunction with the next comprehensive update of the General Plan, the County shall consider incorporating a bicycle master plan as a component of the Circulation Element.
6. To safely accommodate bicycle traffic, adequate pavement shoulder and/or striping shall be planned and implemented for Expressways, Major, and Collector roads, and, in agricultural areas, on Local roads when constructing new roadways or implementing major rehabilitation projects.
7. Whenever a roadway is resurfaced or restored, adequate pavement shoulder and/or striping will be considered to safely accommodate bicycle travel ... where adequate right-of-way exists.
8. Federal funds, special grants, and other sources of funding shall be pursued for the development and improvement of bikeways and pedestrian pathways.
9. Pedestrian-oriented design (POD) guidelines shall be prepared which will include the identification of areas and/or projects to which POD guidelines shall apply. POD guidelines shall identify strategies for creating communities that increase the convenience, safety and comfort of people walking and bicycling. (County General Plan, Circulation Element)

TC-15: Policy Eight

Promote public transit as a viable transportation choice.

Implementation Measures:

1. Continue to operate an inter-city transit system and cooperate with other agencies and cities to provide public transit serving Stanislaus County.
2. Where appropriate, new development shall include provisions for connecting to or expansion of existing and/or planned public transit systems. (County General Plan, Circulation Element)

TC-16: Policy Ten

The Airport Land Use Commission Plan and County Airport Regulations ... shall be updated as necessary, maintained and enforced. (County General Plan, Circulation Element)

(6) City of Modesto Policies

According to Chapter V of the UAGP, "The purpose of transportation and the circulation system is to move people and goods safely, conveniently, and efficiently. The transportation and circulation systems should be designed to make transportation safe and convenient for all users." Figure V-1-1 presents the UAGP Circulation & Transportation Diagram, which presents the roadway designations, rail lines, and terminals within the Modesto urban area.

(a) Policies Relating to Street Designations**TC-17: State Highway**

This classification defines any street which is acquired, laid-out, constructed, improved or maintained as a state highway pursuant to constitutional or legislative authorization. The street can be a freeway, expressway, arterial or other roadway classification. The right-of-way, design and construction on a State Highway should follow state standards. The improvement and addition of freeway interchanges should be made when required by future traffic demands. (UAGP Policy V-B.5[a])

TC-18: Streets in Specific Plans

Any Specific Plan may propose modifications to right-of-way and cross section standards for the five Circulation and Transportation Designations. Design modifications must be approved by the City's Public Works Director prior to implementation. (UAGP Policy V-B.5[b])

TC-19: Expressways

The City's General Plan provides for a system of expressways throughout the City. The City will continue to include these expressways in its Circulation and Transportation plan and to implement them in cooperation with the development community according to applicable design standards.

- (1) The City shall regulate and limit the number and design of expressway access locations in order to ensure the overall operational viability of expressways in the community.
- (2) Any consideration of access to expressways shall be contingent on the ability of an applicant to provide a properly designed solution consistent with the adopted City standard specifications for access to Class B or Class C expressways. The City Engineer may approve variations and deviations from adopted standard specifications pursuant to Section 7-1.701(I)(2) of the Municipal Code. Consideration of a variation and/or deviation from adopted standard specifications shall be subject to environmental review pursuant to the California Environmental Quality Act (CEQA).
- (3) Any access to expressways from private parcels shall be at the sole expense of the private party, including any reconstruction of the expressway which may be necessitated.

- (4) The City may allow expressway access along either Class B or Class C expressways to non-residential uses on a case-by-case basis when conditions A and B are met, or condition C is met or condition D is met as noted below.
 - (a) When an applicant demonstrates to the City Council's satisfaction that economic purposes are clearly restricted by denial of access to a particular parcel.
 - (b) When an applicant demonstrates to the City Council's satisfaction that there are either no or only highly restrictive alternative access solutions available to a particular parcel under consideration.
 - (c) For infill site developments, when an applicant demonstrates to the City Council's satisfaction that the economic benefits derived from development of the remnant parcel overrides the need to limit access to that parcel.
 - (d) It is recognized that City of Modesto emergency facilities, such as police and fire stations, will be located from time to time on expressways, and further, that direct access is desirable. In these cases, direct access is allowed and shall be designed in cooperation with the Engineering and Transportation Department. Said design shall have City Council approval prior to implementation.
- (5) The City has adopted access management policies that include design standards for expressway access, (General Plan Amendment 2001-02, August 28, 2001). The purpose of the guidelines and design standards is to provide safe ingress and egress to adjacent parcels while at the same time not degrading the carrying capacity, flow and efficiency of the expressway. Such access management guidelines and design standards conform to design criteria and standards as set forth by the American Association of State Highway and Transportation Officials (AASHTO). (UAGP Policy V-B.5[c])

(b) Circulation and Transportation Policies—Overall

TC-20: The streets and highways system should be coordinated with Caltrans', the County's, and other jurisdictions' existing facilities and plans. The adoption of a regional expressway system by Stanislaus Council of Governments (StanCOG) should be supported, and the components of the regional system which lie within the City's Sphere of Influence shall be incorporated into the City's Circulation and Transportation Diagram. The expressway system shall be designed to accommodate mass transit. The City shall develop an efficient and well-coordinated multi-modal (rail/air/bus/bicycle/pedestrian) transportation system. (UAGP Policy V-B.6[a])

TC-21: Transportation Control Measures (TCMs) shall be implemented where feasible or mandated by other agencies, to reduce vehicle miles traveled, vehicle idling, or traffic congestion. Alternatives to the drive-alone auto mode, such as mass transit, ride sharing, non-motorized transportation, and telecommuting should be encouraged.

In addition, the City shall encourage innovative means to reduce traffic congestion and enhance air quality, such as teleconferencing centers, fiber optic communication networks, internet commerce and education, and alternative fuels and vehicles; traffic flow improvements, including: implementation of Intelligent Transportation Systems (ITS), coordination of traffic signals,

reducing congestion at major intersections, and alternative traffic controls such as roundabouts; increased transit service including: regional express bus service, transit access to airports, and railroad stations, expansion of public transportation, bus pullouts and transit shelters, bicycle racks on buses; trip reduction programs including transit oriented development, sustainable development, and preferential parking and financial incentives for carpools and vanpools; encouragement of pedestrian and bicycle travel including development of the non-motorized transportation system as outlined in the December 2006 *Non-Motorized Transportation Plan* and development of pedestrian and bicycle overpasses where feasible and appropriate; development of safe routes to school and other measures as identified in the latest Modesto City Council resolution regarding Reasonably Available Control Measures. (UAGP Policy V-B.6[b])

TC-22: Transportation Demand Management (TDM) measures are encouraged to directly affect trip makers' choice of travel mode and the routes and time of day for trips. Transportation Demand Management has as its purpose the reduction in the number of vehicle trips being made on the street network. Typical types of TDM measures would be promotion of transit, car pooling or van pooling, non-motorized transportation, and pricing of parking to make these alternative modes of transportation more attractive and cost competitive. (UAGP Policy V-B.6[c])

TC-23: The City shall prepare a citywide transportation improvement plan to accommodate peak hour traffic flow on arterial streets and major collector streets while considering transit, bicycle and pedestrian travel. This plan may include traffic signal coordination and low-cost intersection and roadway segment improvements, such as striping and restriping to add turning lanes. This plan should also consider Transit Oriented Development (TOD), Smart Growth principles, transit enhancements and non-motorized transportation networks as means to reduce vehicle trips and maximize the efficiency of the existing and planned roadway system. (UAGP Policy V-B.6[d])

TC-24: The City hereby defines and authorizes the use of a "Plan Line." The Plan Line is a process that specifically defines the location of center lines, alignments, rights-of-way, cross-sections and intersections for future or proposed roadways and non-motorized transportation right-of-ways. The purpose of a Plan Line is to provide adequate right-of-way for future growth needs and to protect the right-of-way from encroachment. Adopted Plan Lines shall be incorporated into development plans to define specific requirements for dedicating the right-of-way for street purposes and to implement Circulation and Transportation Policies of the General Plan. (UAGP Policy V-B.6[e])

TC-25: The highest possible levels of service for all transportation modes (vehicle, transit, pedestrian and bicycle) shall be maintained on City roadways, consistent with the financial resources reasonably available to the City and without unreasonably burdening property owners or developers with excessive roadway improvement costs.

On roadways where the LOS is expected to exceed level F, the City should consider mitigation measures other than road widening, such as the addition of bicycle lanes, improved pedestrian access, improved transit service, and the establishment of walkable development patterns.

Data from the General Plan Traffic Analysis, described in [Appendix A of the Master EIR, as updated from time to time,] shall be used to evaluate the effectiveness of traffic mitigation measures adopted by the City Council. (UAGP Policy V-B.6[f])

- TC-26:** Where safety, traffic operations, and non-motorized transportation are not compromised, in-fill and redevelopment projects shall be exempted from the City's street width and right-of-way standards if those standards exceed the original standards under which the adjacent streets were constructed. This exemption shall not apply to other street improvement standards, such as, but not limited to, drainage, structural requirements, curbs, gutters, sidewalks, and lighting. This exemption shall not apply on State Highways or where Plan Lines have been adopted. (UAGP Policy V-B.6[g])
- TC-27:** The City's circulation system shall facilitate a rapid response by emergency vehicles and shall accommodate school buses. Factors shall include adequate road widths and corner radii in street designs to ensure that the appropriate fire equipment and school buses can negotiate City streets. (UAGP Policy V-B.6[h])
- TC-28:** Development shall be designed to encourage walking as an alternative mode to the automobile for transportation by creating safe and convenient pedestrian facilities and connections through landscaping, frontage improvements, and pedestrian walkways through parking areas and over major barriers such as freeways or canals. Development of cul-de-sacs should be discouraged; however when proposed, through cul-de-sacs shall, to the greatest extent possible, provide pedestrian connections to schools and other community facilities. Sound wall designers, where warranted and appropriate for new and existing development, shall consider pedestrian access to the adjacent roadway. (UAGP Policy V-B.6[i])
- TC-29:** Non-motorized transportation, such as the bicycle, shall be promoted as an alternative mode of transportation. An adequate and safe non-motorized transportation system in accordance with the City of Modesto Non-Motorized Transportation Plan (updated December 2006 and adopted as part of the Modesto Urban Area General Plan, January 2007, P-GPA-06-001) shall be provided to connect residential areas with shopping and employment areas in and adjacent to the City for present and future transportation needs. Right-of-way for non-motorized usage shall be considered in the planning of new streets and in street improvements. Facilities for mode transfer from non-motorized travel to park-and-ride lots, transit, and rail shall be considered and provided when necessary. (UAGP Policy V-B.6[j])
- TC-30:** The City shall encourage the effort to make a safe, efficient and effective rail service possible by increasing the frequency, speed, and comfort of its passengers. The City recognizes and encourages a safe and convenient interface among rail, transit, automobile and non-motorized traffic. The following forms of rail service are particularly encouraged:
- (1) Amtrak. The City supports continued passenger rail service to the Modesto area
 - (2) Inter-regional Rail Service. The City supports the rerouting of San Joaquin rail service to provide service to the downtown area and the intermodal facilities and creation of passenger commute rail service from Modesto to San Joaquin County, then to Sacramento and over the Altamont Pass to the Bay Area.
 - (3) Light Rail Transit/Bus Rapid Transit. The City shall support a light rail transit or bus rapid transit (BRT) system when the urban form warrants it and where it is feasible. BRT is a flexible and rapid mode of transportation that uses buses combined with stations, services, running ways, and

technology to provide the quality of rail transit and the flexibility of buses in an integrated system with strong identity.

- (4) High Speed Rail. The City encourages and supports the development of a high speed rail corridor through the San Joaquin Valley and the development of a high speed rail station within the City.
- (5) Freight Rail. The City encourages the extended and increased use of rail as an alternative transportation mode for the movement of goods. In addition, the City supports the intermodal linkage of “truck on rail” as a technique for reducing through-truck traffic on highway corridors.
- (6) To provide acceptable traffic operations and to maintain safe crossings, the City shall support the construction of grade-separated crossings for all new crossings. Existing at-grade crossing shall be maintained and new developments shall be evaluated to ensure that railroad crossing operations are not compromised. The City shall seek state funding and grants to improve railroad crossings within the City of Modesto. Any modifications to existing railroad crossings or new crossings (at-grade or grade separated) shall be coordinated with the appropriate railroad company. (UAGP Policy V-B.6[k])

TC-31: Street networks in new development shall be developed to permit non-motorized and vehicle trips within the development be completed without the use of collector streets and arterial streets. (UAGP Policy V-B.6[l])

TC-32: The City shall work with Caltrans to promote the application of advanced technology to help manage congestion and enhance roadway capacity and safety. Known as “Intelligent Transportation Systems” (ITS), the program includes the following components:

- (1) Advanced Traffic Management Systems (ATMS), which maximize capacity of the transportation system, and involves using technology to manage traffic flow, disseminate real-time travel information to travelers, improving emergency response, freeway patrol service, and coordinate inter-agency traffic management.
- (2) Advanced Traveler Information Systems (ATIS), which provide on-board navigation that can provide congestion and accident information and alternative travel routes.
- (3) Commercial Vehicle Operation (CVO), which restricts commercial vehicles from operating during commute peak hours and helps transportation companies track their vehicles.
- (4) Advanced Vehicle Control Systems (AVCS), which use on-board and in-road guidance systems to optimize vehicle speed and movement. (UAGP Policy V-B.6[m])

TC-33: The City has developed guidelines for private property access to the expressway, arterial and collector street system. These guidelines provide for reasonable, safe and coordinated access while maintaining smooth and safe traffic flow along the City’s major streets. These guidelines address the number, location, design and operation of access driveways for each class of roadway. (UAGP Policy V-B.6[n])

TC-34: The City shall provide a balanced, feasible and well-maintained system of transportation for motorized and non-motorized modes. (UAGP Policy V-B.6[o])

- TC-35:** In the case of conflict between motorized and non-motorized transportation modes, roadway and right-of-way features will be added or altered to protect pedestrians and bicyclists, as well as provide for improved safety for motorized traffic consistent with Urban Area General Plan goals. Features could include pedestrian and bicycle bridges over roadways. (UAGP Policy V-B.6[p])
- TC-36:** The City of Modesto *Roundabout Policy* (dated September 2004) provides guidelines and policies that pertain to the development of the roundabouts and is hereby adopted and into the Modesto Urban Area General Plan. The use and design of roundabouts shall conform to these requirements. (UAGP Policy V-B.6[q])
- TC-37:** New roadways and roadway connections shall conform to the most recent City of Modesto Roadway Design Standards, as detailed in *Standard Specifications*, City of Modesto Public Works Department or to the standards authorized under a specific plan, whichever is applicable. Shared and consolidated access to arterial roadways shall be encouraged to minimize curb cuts. (UAGP Policy V-B.6[r])
- TC-38:** New roadways and roadway connections should be designed to provide a grid street system to improve connectivity, accessibility of all modes, increase route choice, better accommodate public transit services, and reduce trip length, traffic congestion, and pollution. (UAGP Policy V-B.6[s])
- TC-39:** The City of Modesto shall update and maintain a Capital Facilities Fee program to contribute to transportation improvement projects of local and regional significance. (UAGP Policy V-B.6[t])
- TC-40:** Bus pullouts are to be added to new developments to support transit passenger loading and unloading. (UAGP Policy V-B.6[u])
- TC-41:** New schools and parks should be surrounded by streets on all sides wherever possible to encourage access by walking and bicycle and to provide safe and adequate parking for drop-off and pick-up along the school frontage. (UAGP Policy V-B.6[v])

(c) Circulation and Transportation Policies—Redevelopment Area and Baseline Developed Area

- TC-42:** For new development with the potential to generate 100 or more peak hour vehicle trips (greater than the number of trips expected to occur with development consistent with the UAGP and the MEIR) the City may require a qualified traffic engineer prepare a traffic study to identify potential transportation impacts and specify improvement measures needed to ensure an acceptable LOS on affected streets. The City Engineer will specify the extent of the traffic study based on existing conditions and key issues associated with site plans. (UAGP Policy V-B.7[a])
- TC-43:** The City may allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, be prohibitively expensive, significantly impact adjacent properties or the environment, significantly impact non-motorized transportation systems, or have a significant adverse effect on the character of the community. To the extent feasible, the City shall strive for LOS D on all streets and intersections. (UAGP Policy V-B.7[b])
- TC-44:** Individual development projects that could affect conditions on traffic facilities predicted by the General Plan Traffic Analysis to operate at LOS "D" or better

in 2025 (as shown in [Appendix A] of the Master EIR) cannot cause, without further study, conditions to be worse than LOS "D" at any time prior to 2025. If implementation of this Level of Service is impractical or infeasible, or may result in impacts on the non-motorized transportation system subsequent environmental review, including a Comprehensive Traffic Study, shall be required.

The subsequent environmental review may take the form of:

- (1) A mitigated negative declaration, if feasible mitigation measures or alternatives will be incorporated to avoid the worsening of the LOS standards presented in [Appendix A] of the Master EIR. (Section 21157.5(a) of CEQA.)
- (2) An EIR, if mitigation measures cannot avoid the worsening of the LOS Standards presented in [Appendix A] of the Master EIR. (Section 21157.5(b) of CEQA.)

The Comprehensive Traffic Study shall include appropriate measures to update the General Plan Traffic Analysis for all subsequent Specific Plans, and for development within the affected Baseline Developed Area and Redevelopment Area, and shall conform to the *Criteria for a Traffic Impact Study*. (UAGP Policy V-B.7[c])

TC-45: Individual development projects that could affect conditions on traffic facilities predicted by the General Plan Traffic Analysis to operate at LOS "E" (as shown in [Appendix A] of the Master EIR) shall not, without further study, cause conditions on those facilities to exceed LOS "E" at any time prior to 2025. If implementation of this Level of Service is impractical or infeasible, subsequent environmental review, including a Comprehensive Traffic Study, will be required.

The subsequent environmental review may take the form of:

- (1) A mitigated negative declaration, if feasible mitigation measures or alternatives will be incorporated to avoid the worsening of the LOS standards presented in [Appendix A] of the Master EIR. (Section 21157.5(a) of CEQA.)
- (2) An EIR, if mitigation measures cannot avoid the worsening of the LOS Standards presented in [Appendix A] of the Master EIR. (Section 21157.5(b) of CEQA.)

The Comprehensive Traffic Study shall include appropriate measures to update the General Plan Traffic Analysis for all subsequent Specific Plans, and for development within the affected Baseline Developed Area and Redevelopment Area, and shall conform to the *Criteria for a Traffic Impact Study*. (UAGP Policy V-B.7[d])

TC-46: Individual development projects that could affect conditions on traffic facilities predicted by the General Plan Traffic Analysis to achieve LOS "F" (as shown in [Appendix A] of the Master EIR) shall not, without further study, cause further substantial degradation of conditions. Further substantial degradation shall be defined as an increase in the daily vehicle/capacity (v/c) ratio of 0.05 or greater for roadway segments whose v/c ratio is estimated to be 1.00 or higher in 2025 by the traffic model. If implementation of this Level of Service is impractical or infeasible, subsequent environmental review, including a Comprehensive Traffic Study, will be required.

The subsequent environmental review may take the form of:

- (1) A mitigated negative declaration, if feasible mitigation measures or alternatives will be incorporated to avoid the worsening of the LOS standards presented in [Appendix A] of the Master EIR. (Section 21157.5(a) of CEQA.)
- (2) An EIR, if mitigation measures cannot avoid the worsening of the LOS Standards presented in [Appendix A] of the Master EIR. (Section 21157.5(b) of CEQA.)

The Comprehensive Traffic Study shall include appropriate measures to update the General Plan Traffic Analysis for all subsequent Specific Plans, and for development within the affected Baseline Developed Area and Redevelopment Area, and shall conform to the Traffic Study Guidelines. (UAGP Policy V-B.7[e])

TC-47: Designated City staff will review future development project proposals within the Baseline Developed Area, on a case-by-case basis. The following criteria may be applied to each proposal, and a determination made by the designated staff of the Public Works Department or other City department, regarding the acceptable or appropriate level of project impact on the circulation network.

- (1) For proposed development projects that conform to the General Plan-approved land use for the site, it is assumed that the adopted performance standards for the circulation system within the area of impact will be maintained. For such projects, the designated City staff may establish an appropriate scope of study for a "Site Access Study", if necessary, which may address project impacts to adjacent or nearby intersections, as described in Policies 6-a through 6-c.
- (2) A "Site Access Study" shall, at a minimum, analyze and resolve the following:
 - (a) Impacts to roadway segments adjacent to the project site.
 - (b) Impacts to intersections considered to have a key role in regulating access to the project site or substantial traffic flow between the project site and a key arterial roadway.
 - (c) Impacts to and design needs for access between internal and off-site vehicular circulation, and linkages to off-site bicycle/pedestrian circulation systems, and transit services.
 - (d) On-site parking needs and impacts to off-site parking, when applicable.
 - (e) Other operational or safety-related concerns and issues, including site access.
- (3) The proposed development project will be designed to incorporate all recommendations of the "Site Access Study."
- (4) If implementation of the definitive recommendations of the Site Access Study is impractical or infeasible, a subsequent environmental review, including a Comprehensive Traffic Study, may be required. That Study shall include appropriate measures to update the General Plan Traffic Analysis for all subsequent Specific Plans, and for development within the affected Baseline Developed Area and Redevelopment Area.
- (5) For projects which do not conform to the General Plan-approved land use, further, supplemental environmental review may be necessary, in accordance with Section 21157.1(d) of the Public Resources Code. (UAGP Policy V-B.7[f])

TC-48: Data from the General Plan Traffic Analysis, described in [Appendix A] of the Master EIR, shall be utilized to evaluate the effectiveness of the Policies presented above. (UAGP Policy V-B.7[g])

(d) Circulation and Transportation Policies—Planned Urbanizing Area

TC-49: Prior to the adoption of each Specific Plan, a “Comprehensive Traffic Study” shall be prepared, to the satisfaction of the Public Works Director, and be included in an EIR for each respective Specific Plan. (UAGP Policy V-B.8[a])

TC-50: The Comprehensive Traffic Study shall include the following components:

- (1) Sufficient analysis and mitigation measures to ensure that the Level of Service “D” Standard is maintained on all Specific Plan area roadways and intersections. A determination of which external links and intersections require study and impact assessment shall be made by the Public Works Director.
- (2) If the identified mitigation measures cannot feasibly achieve the traffic performance standard for internal and external roadways in the opinion of the Public Works Director, then the Comprehensive Traffic Study shall include appropriate measures to update the General Plan Traffic Analysis and findings for all subsequent Specific Plans, and for development within the Baseline Developed Area and Redevelopment Area. (UAGP Policy V-B.8[b])

TC-51: For individual proposed projects that conform to a Specific Plan’s land use designations (for amount and type of land use) a subsequent Site Access Study may be required. Each Site Access Study should, at a minimum, focus on the following issues:

- (1) Impacts to roadway intersections that are adjacent to the project site.
- (2) Impacts to and design needs for access between internal and off-site vehicular circulation, and linkages to bicycle/pedestrian circulation systems and transit services.
- (3) On-site parking needs.
- (4) Other safety-related concerns.

Conceivably, the Comprehensive Traffic Study may contain sufficient detail to obviate some or all portions of a “Site Access Study.” (UAGP Policy V-B.8[c])

TC-52: Data from the General Plan Traffic Analysis, described in [Appendix A] of the Master EIR, shall be utilized to evaluate the effectiveness of the Policies presented above. (UAGP Policy V-B.8[d])

TC-53: Projects that do not conform to the General Plan-approved land use may need supplemental environmental review, in accordance with Section 21157.1(d) of the Public Resources Code. (UAGP Policy V-B.8[e])

(e) Policies Related to the Modesto City-County Airport

TC-54: The City encourages aviation services at the Modesto City/County Airport and promotes airline service that meets the present and future needs of the community. The City should pursue greater inter-regional air service to the extent that it is economically viable. (UAGP Policy V-F.2[a])

- TC-55:** Land use around Modesto City-County Airport will be consistent with the Stanislaus County's Airport Land Use Commission (ALUC) plan adopted in accordance with Section 21676 of the Public Utilities Code. The ALUC plan provides for the orderly growth of the Airport and the area surrounding the Airport within the jurisdiction of the Airport Land Use Commission, and will safeguard the general welfare of the inhabitants within the boundary of influence and the public in general. (UAGP Policy V-F.2[b])
- TC-56:** Mitigation measures suggested by the Airport Master Plan and related documents should be considered at the implementation of inter-regional air service, including a voluntary noise reduction program for residential units impacted by noise levels that exceed acceptable state standards. (UAGP Policy V-F.2[c])

(f) Transit Policies

- TC-57:** Public transit services shall be provided, using the most cost-effective methods available and based upon professional analysis of alternatives through the maintenance of the City's Long Range Transit Plan. (UAGP Policy V-I.2[a])
- TC-58:** The City's transit system shall strive to provide a mix of head ways dependent upon actual and anticipated ridership to reach a balance between cost-effectiveness and convenience. (UAGP Policy V-I.2[b])
- TC-59:** The City's transit system shall strive to maintain farebox recovery ratios sufficient to meet state requirements. (UAGP Policy V-I.2[c])
- TC-60:** The City shall participate in regional public transit proposals to the extent economically feasible and that such systems benefit Modestans. (UAGP Policy V-I.2[d])
- TC-61:** The City transit system shall strive to provide service on a one-half-mile grid where feasible to make the service as accessible as possible. Newly developing areas should provide a street pattern capable of accommodating transit service on a one-half-mile grid. Sidewalks to transit facilities shall be provided in the development of new roadway systems to minimize walking distance. (UAGP Policy V-I.2[e])
- TC-62:** The City's transit system shall strive to provide two-way service on routes where feasible. (UAGP Policy V-I.2[f])
- TC-63:** The City shall strive to safeguard options for future transit and mass transportation development. (UAGP Policy V-I.2[g])
- TC-64:** In major new development areas, the transit operators shall be encouraged to have service available when the first resident or employer moves in. (UAGP Policy V-I.2[h])

(g) Policies Which Avoid Impacts

1. Stanislaus Council of Governments Policies

The following StanCOG policies will reduce the cumulative impacts identified in the EIR prepared for the RTP: TC-1 through TC-10.

2. County Policies

County policies do not apply within Modesto. However, they are important at the city's edge where City and County roads connect. Policies TC-11 through TC-16 moderate impacts of traffic on roads that connect to the City's network.

3. Modesto Policies

The following City policies will avoid impacts within the planning area: TC-17 through TC-64.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

Appendix G of the State CEQA Guidelines indicates that a project may have a significant impact if it would cause a substantial increase in traffic over existing street capacity; exceed CMP LOS standards, either individually or cumulatively; result in a change in air traffic patterns or location resulting in substantial safety risk; substantially increase hazards due to design features; result in inadequate emergency access; result in inadequate parking capacity; or conflict with adopted policies/plans supporting alternative transportation modes.

2. Thresholds of Significance Adopted by the City of Modesto

After consideration of the approaches suggested by the State CEQA Guidelines and commonly accepted traffic engineering practices, the City has selected LOS D or better for AM and PM peak-hour and daily conditions as the standard for the evaluation of impacts, except for locations where alternative standards have been adopted. This is consistent with the acceptable LOS standards established under the 2003 UAGP.

An impact is considered significant if the roadway's projected LOS would exceed level D.

On roadways where the LOS is expected to exceed the threshold, the City should consider the effects of possible mitigation on the entire roadway system, as roadway widening can result in secondary impacts on the non-motorized transportation network, potentially degrading the overall transportation network.

3. Significant Direct Impacts

A computerized traffic model, the TPPG Model, was used to develop future traffic forecasts for the UAGP to 2025. The TPPG Model applies trip generation rates to land use data to forecast total trips produced and attracted by traffic analysis zones (TAZs) throughout the planning area on an average weekday and during the weekday PM peak hour. Separate modules within the overall traffic model were used to distribute trips among the TAZs in the model system and to assign the trips to specific roads within the roadway network.

The TPPG Model was calibrated to a 2005 base year. The City's land use and zoning designations within the Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area were translated into residential dwelling unit and employment totals for input into the TPPG Model based on density assumptions made by the City, as summarized in Table V-1-5. More information relating to the travel demand model used for this analysis can be found in the TPPG Model validation document in Appendix A.

Table V-1-5. Dwelling Unit and Employment Density Assumptions by Land Use Designation (2007)

Land Use Designation	Zoning Code	Dwelling Units Per Acre	Jobs Per Acre
Redevelopment Planning District	RPD	2.6	26.85
Residential	R	7.5	0
Commercial	C	0	15.63
Mixed Use	MU	14	8
Industrial	I	0	15.25
Regional Commercial	RC	0	20
Business Park	BP	0	35
Open Space	OS	0.1	0
Village Residential	VR	6.6	0.7

Notes: 2.9 persons per dwelling unit.

Salida Community Plan contains 7,900 dwelling units.

Source: City of Modesto, Planning Department.

a. Roadway Improvements

The 2025 roadway network contains several new roadways plus extensive widening along SR 99 and city arterials and expressways. Some of the changes are highlighted below:

(1) New Facilities

Examples of new facilities include a new west-side four-lane expressway extending from SR 99 south of Kansas Avenue, the extension of Brink Road from North Avenue to Dakota Avenue/Salida Boulevard, the extension of Prescott Road north to Bangs Avenue, the extension of Tuolumne Boulevard east, the realignment of Claus Expressway, and the extension of Claratina Avenue east past Roselle Avenue. New roadways to support future development will be constructed between Kiernan

Avenue/Claribel Road and Pelandale Avenue/Claratina Avenue and between Sylvan Avenue and Claratina Avenue east of Oakdale Road. New roadways to support future development also will be constructed in the southwestern part of Modesto, primarily south of the new expressway and west of Carpenter Road. Construction of these new roadways will be subject to a separate environmental review.

(2) Expanded Facilities

Examples of planned improvements to existing freeway, expressway, and arterial facilities are listed below.

- SR 99 is to be widened from a six-lane freeway to an eight-lane freeway.
- Kiernan Avenue/Claribel Road is to be expanded from two lanes to six lanes.
- Bangs Avenue is to be widened from a two-lane facility to a four-lane facility.
- Pelandale Avenue is to be expanded to a six-lane facility.
- Standiford Avenue is to be widened from four lanes to six lanes, and Sylvan Avenue is to be widened from a two- to four-lane roadway to a six-lane roadway, west of Oakdale Road.
- Briggsmore Avenue is to be widened to a six-lane facility throughout its length.
- Yosemite Avenue is to be widened to six lanes from east of downtown to Claus Road and to four lanes east of Claus Road.
- Hatch Road is to be widened to four lanes throughout its length.
- Maze Road, Paradise Road, and Whitmore Avenue are to be widened to four lanes.
- Dale Road is to be widened to six lanes.
- Tully Road is to be widened to six lanes, north of Sylvan Avenue.
- McHenry Avenue is to be widened to four lanes north of Kiernan Avenue and to six lanes between Kiernan Avenue and Grecian Avenue.
- Coffee Road is to be widened to four lanes north of Mable Avenue.
- Oakdale Road north of Claribel Road is to be widened to four lanes, and Oakdale Road/El Vista Road/Mitchell Road is to be widened to six lanes.
- Roselle Avenue is to be widened to four lanes.

(3) Changes in Vehicle Miles Traveled

Vehicle miles traveled (VMT) is an estimate of the total amount of travel occurring within the model area. VMT estimates for 2005 and 2025 are presented in Table V-1-6. VMT is projected to increase by about 82 percent between 2005 and 2025, with vehicle hours of travel projected to increase by 108 percent, indicating that the roadways are becoming more congested. Average speed is expected to decrease by 13 percent.

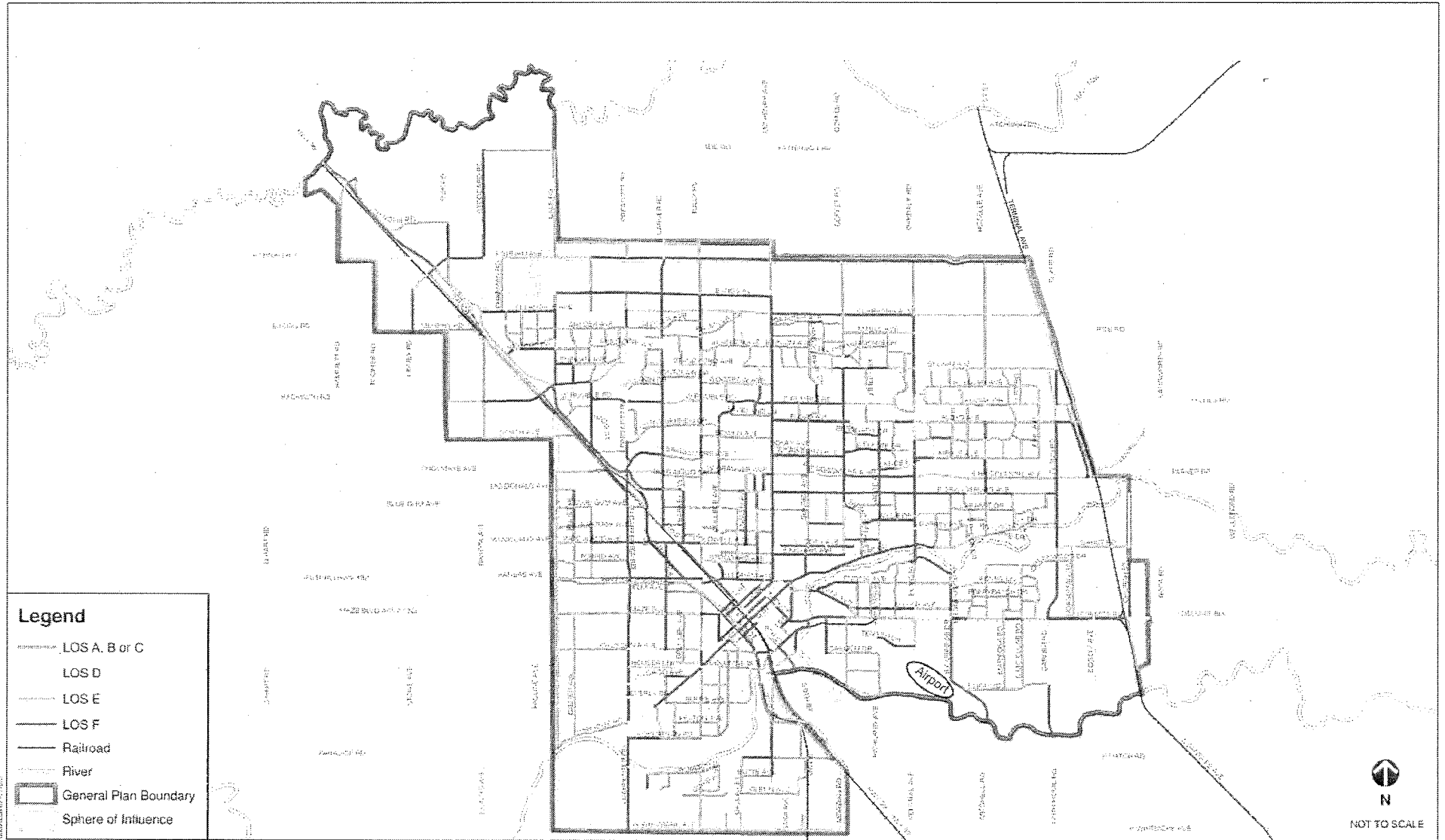
Table V-1-6. Changes in Daily Vehicle Miles Traveled and Lane Miles of Roadway—2005 and 2025

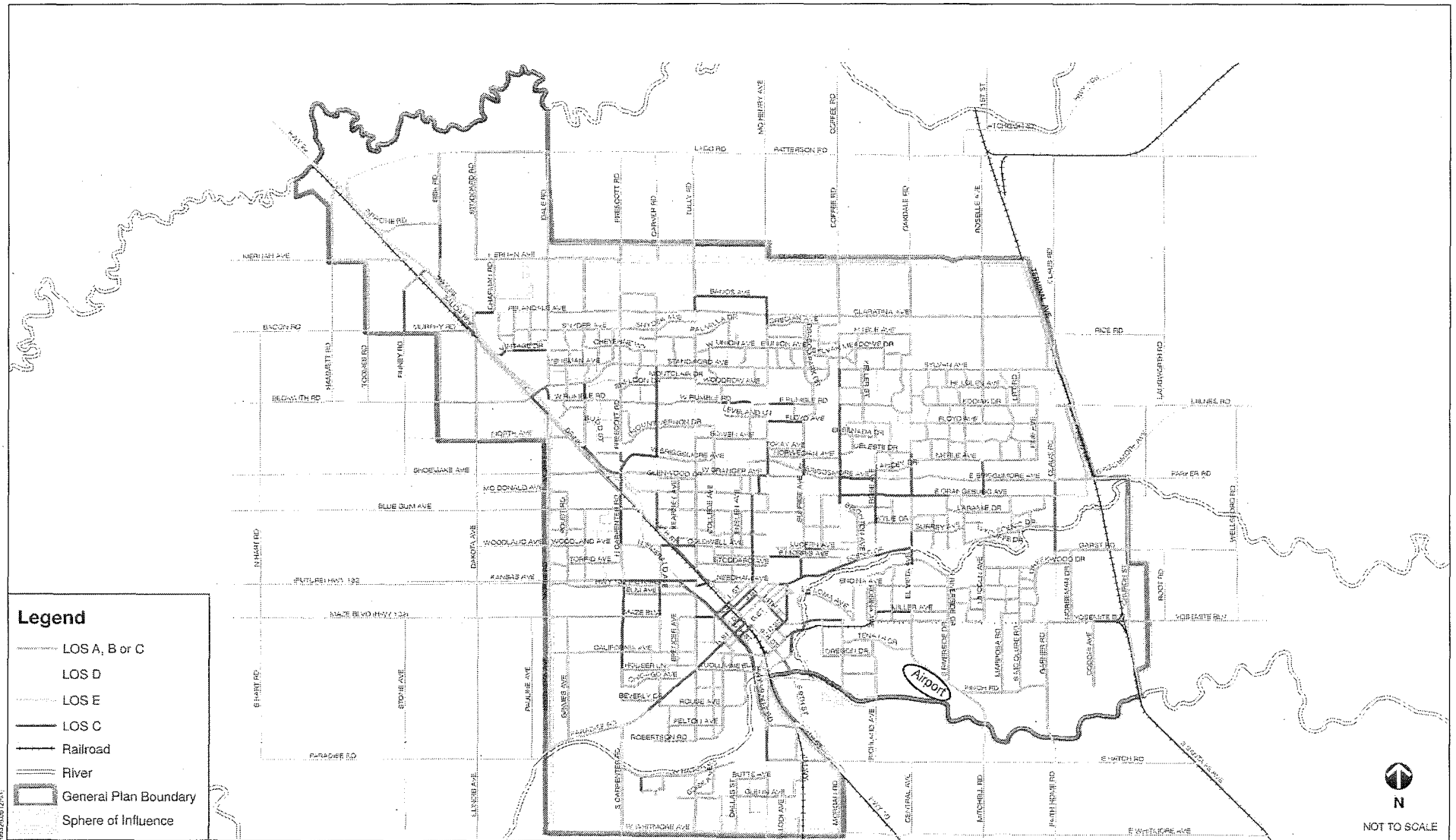
Year	Lane Miles	Vehicle Miles Traveled	Vehicle Hours of Travel	Average Speed
2005	1,547	6,835,210	173,647	39.4 mph
2025	1,983	12,447,000	361,800	34.4 mph
Percent Change	12%	82%	108%	-13%

Roadway segment LOS were calculated to evaluate the effect of the growth projected by the UAGP, combined with the proposed roadway network revisions described above, on roadway operations. The 2025 PM peak-hour LOS are presented in Figure V-1-4a, and the daily LOS are presented in Figure V-1-4b. The roadway segments operating at LOS E and F on a daily basis outside the downtown area are summarized in Table V-1-7. Those operating at LOS E or F on a PM peak-hour basis are presented in Appendix A.

Table V-1-7. Daily Roadway Segments with Level of Service E or F

Roadway Segment	From	To	Daily LOS	General Plan Lanes	Additional Lanes for LOS D
1. New road north of Kiernan Avenue	Tully Road	McHenry Avenue	F	2	2
2. 7th Street	Tuolumne Boulevard/ B Street	Crows Landing Road	E	4	2
3. Bangs Avenue	Tully Road	McHenry Avenue	F	4	2
4. Beckwith Road/ Standiford Avenue	Dakota Avenue	Dale Road	E/F	6	4
5. Bodem Street	Morris Avenue	Downey Avenue	F	2	2
6. Briggsmore Avenue	Coffee Road	Oakdale Road	E/F	6	2
7. Brink Avenue	Beckwith Road	Morse Road	F	4	2
8. Carpenter Road	9th Street	Woodland Avenue	F	6	4
9. Carpenter Road	Torrid Avenue	Chicago Avenue	E/F	6	2
10. Carpenter Road	Robertson Road	Whitmore Avenue	E	6	2
11. Carver Road	Bangs Avenue	Volendam Avenue	E	2	2
12. Carver Road	Cheyenne Way	Standiford Avenue	E	2	2
13. Carver Road	Standiford Avenue	Briggsmore Avenue	F	2	2
14. Carver Road	Orangeburg Avenue	9th Street	F	2	2
15. Claribel Road	McHenry Avenue	Oakdale Road	E	6	2
16. Claribel Road	Roselle Avenue	Santa Fe Avenue	E	6	2
17. Claus Road	Floyd Avenue	Creekwood Drive	E/F	6	4
18. Coffee Road	Claratina Avenue	Montana Drive	E	4	2
19. Coffee Road	Sylvan Avenue	Brighton Avenue	E/F	4	2
20. Conant Avenue	Standiford Avenue	Rumble Road	F	2	2





Roadway Segment	From	To	Daily LOS	General Plan Lanes	Additional Lanes for LOS D
21. Crows Landing Road	SR 99 northbound ramps	Hatch Road	E/F	6	2
22. Dale Road	Pelandale Avenue	Nightingale Drive	E	6	2
23. Dale Road	Vintage Drive/ Konyenburg Lane	Standiford Avenue	E	6	2
24. Emerald Avenue	Woodland Avenue	California Avenue	E/F	2	2
25. Finney Road	Bacon Road/ Murphy Road	Broadway Avenue	F	2	2
26. Florida Avenue	Orangeburg Avenue	Granger Avenue	F	2	2
27. Floyd Avenue	McHenry Avenue	Sunrise Avenue	F	2	2
28. Granger Avenue	Florida Avenue	McHenry Avenue	F	2	2
29. Kansas Avenue	Carpenter Road	SR 99 SB Ramps	F	2	2
30. Kearney Avenue	Orangeburg Avenue	Roseburg Avenue	E	2	4
31. Kearney Avenue	Leonard Avenue	Coldwell Avenue	E	2	2
32. Kiernan Avenue	Salida Boulevard	SR 99 southbound ramps	F	4	2
33. La Loma Avenue	Morton Boulevard	Yosemite Boulevard	E/F	2	2
34. Locke Road	Coffee Road	Brighton Avenue	E	2	2
35. Lucern Avenue	Sunrise Avenue	Coffee Road	E/F	2	2
36. Martin Luther King Drive	California Avenue	Paradise Avenue	E	2	2
37. Maze Boulevard	Carpenter Road	Emerald Avenue	E	4	2
38. Maze Boulevard	Spencer Avenue	Washington Street	E/F	4	2
39. McHenry Avenue	Bangs Avenue	Woodrow Avenue	E/F	6	2
40. McHenry Avenue	Floyd Avenue	Briggsmore Avenue	E/F	6	2
41. McHenry Avenue	Orangeburg Avenue	Roseburg Avenue	E	6	2
42. Merle Avenue	Oakdale Avenue	Walnut Tree Drive	E	2	2
43. Miller Avenue	Conejo Avenue	El Vista Avenue	F	2	2
44. Monticello Lane	Hatch Road	Salazar Circle	F	2	2
45. Morris Avenue	McHenry Avenue	Coffee Road	E/F	2	2
46. Morton Boulevard	Yosemite Boulevard	11th Street	F	2	2
47. Needham Avenue	College Avenue	K Street	E/F	4	2
48. Norwegian Avenue	Sunrise Avenue	Coffee Road	E	2	2
49. Oakdale Road	Mable Avenue	Bridgewood Way	E	6	2
50. Oakdale Road	Sylvan Avenue	Floyd Road	E	6	2
51. Oakdale Road/ El Vista Avenue	Manor Oak Drive	Edgebrook Drive	E/F	6	2
52. Orangeburg Avenue	Briggsmore Avenue	Carver Road	E	4	2
53. Orangeburg Avenue	Sherwood Avenue	Florida Avenue	E	4	2
54. Orangeburg Avenue	El Vecino Avenue	Coffee Road	E	4	2

Roadway Segment	From	To	Daily LOS	General Plan Lanes	Additional Lanes for LOS D
55. Orangeburg Avenue	Coffee Road	Eastridge Drive	E/F	2	2
56. Paradise Avenue/H Street	Pine Tree Lane	1st Street	F	4	2
57. Pelandale Avenue	Sisk Road	Chapman Road	F	6	2
58. Prescott Road	Pelandale Avenue	Cheyenne Way	E	4	2
59. Prescott Road	Plaza Parkway	Briggsmore Avenue	F	4	2
60. Riverside Drive	Yosemite Boulevard	Mitchell Road	E	2	2
61. Rose Avenue	Celeste Drive	Wylie Drive	E/F	2	2
62. Roselle Avenue/ Lakewood Avenue	Merle Avenue	Orangeburg Avenue	F	4	2
63. Rumble Road	Conant Avenue	Prescott Avenue	E	2	2
64. Rumble Road	Napier Drive	Edward Avenue	E/F	2	2
65. Salida Boulevard	Pelandale Avenue	Murphy Road	F	4	2
66. Santa Rosa Avenue	Yosemite Boulevard	Oregon Drive	E	2	2
67. Scenic Drive	Burney Street	Oakdale Road	E/F	4	4
68. Sisk Road	Pirrone Road	Kiernan Avenue	F	2	4
69. Sisk Road	Standiford Avenue	Rumble Road	F	4	2
70. Sisk Road	Conant Avenue	Briggsmore Avenue	F	4	2
71. SR 99 northbound	Hatch Road	9th Street	E	4	1
72. SR 99 northbound	Crows Landing Road	Tuolumne Boulevard	E	4	1
73. SR 99 northbound	Tuolumne Boulevard	Kansas Avenue	F	4	1
74. SR 99 northbound	Kansas Avenue	Standiford Avenue	E	4	1
75. SR 99 northbound	Kiernan Avenue/ Broadway Avenue	Hammett Road	E	3	1
76. SR 99 southbound	Hammett Road	Kiernan Avenue/ Broadway Avenue	E	3	1
77. SR 99 southbound	Standiford Avenue	Briggsmore Avenue	E	4	1
78. SR 99 southbound	Kansas Avenue	H Street	E	4	1
79. SR 99 southbound	H Street	Crows Landing Road	F	4	1
80. Sunrise Avenue	Norwegian Avenue	Granger Avenue	F	2	2
81. Sycamore Avenue	Orangeburg Avenue	Needham Avenue	F	2	2
82. Tenaya Drive	Conejo Avenue	Mitchell Road	E	2	2
83. Tully Road	Bangs Avenue	Pelandale Avenue	F	6	2
84. Tully Road	Standiford Avenue	Woodrow Avenue	E	4	2
85. Vintage Drive	Sisk Road	Gagos Drive	F	2	2
86. Vintage Drive	Bluebird Drive	Dale Road	F	2	2
87. Woodland Avenue/ Coldwell Avenue	Carpenter Road	Tully Road	E/F	2/4	2
88. Wylie Drive	Muirswood Way	Oakdale Road	E	2	2
89. Yosemite Boulevard	D Street	Santa Cruz Avenue	E/F	6	2

Roadway Segment	From	To	Daily LOS	General Plan Lanes	Additional Lanes for LOS D
90. Yosemite Boulevard	Claus Road	Santa Fe Avenue	E/F	4	2

Source: Transportation Planning Partnership Group Model.

Segments operating at LOS E would be operating at close to the capacity of the roadway, with average travel speeds during the peak hour at about 30 percent to 40 percent of the typical free-flow speed of the road. Expressways operating at LOS E would experience average travel speeds of 16 to 21 miles per hour (mph), while arterials would experience average travel speeds of 10 mph to 17 mph during the peak travel hour of the day, typically the afternoon commute hour. The peak hour is that time during the morning and evening when travel demand is at its greatest.

Street segments operating at LOS F would experience unstable conditions, with average travel speeds less than 30 percent of the typical free-flow speed of the road. Congested conditions could begin earlier in the typical peak commute hour and/or take longer to return to satisfactory operating conditions. Motorists may experience high levels of delay at intersections during the peak period while traveling on these LOS F streets.

Table V-1-7 describes the number of lanes that would be required in order to reach LOS D on roadway segments that are projected to operate at LOS E or F at full buildout of the UAGP. This table is not intended to imply that the City will build these lanes or that such construction would even be feasible; it simply offers another way of looking at the projected level of peak congestion.

The increase in traffic is a significant impact. The impacts on noise and air quality as a result of increased traffic are discussed in Sections 2 and 3 of this chapter.

4. Significant Cumulative Impacts

Based on criteria derived from Appendix G to the State CEQA Guidelines, a project would be considered to have a significant transportation and circulation impact on the environment if it would:

- cause an increase in traffic that is considered substantial in relation to the existing traffic load and capacity of the street system;
- exceed, either individually or cumulatively, an LOS standard established by the congestion management agency for designated roads or highways;
- result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- substantially increase hazards because of a design feature or incompatible uses;
- result in inadequate emergency access;
- result in inadequate parking capacity; or

- conflict with adopted policies, plans, or programs supporting alternative transportation.

The object of significance thresholds is to identify clearly the significance of project-related impacts. For this Master EIR, the applicable thresholds are related primarily to the first bullet point above, in which the UAGP would be considered to have a significant impact if it were to cause a substantial increase in traffic. In the 2003 UAGP and subsequent planning documents and guidelines, the City set a standard threshold of LOS D for the roadway system. Therefore, the LOS D threshold has been applied to all roadways in this Master EIR.

In addition, a significant impact on the transit system would occur if the project would cause a substantial increase in transit ridership when compared with available or planned system capacity. Similarly, a significant impact on the bicycle and pedestrian circulation system would occur if the project would cause a substantial increase in usage when compared with available or planned system capacity.

The major rail, water, and air transportation facilities in Modesto are typically controlled and operated by entities other than the City, so the proposed UAGP would not directly cause changes in the usage and operations of those facilities. However, from a transportation perspective, implementation of the UAGP may affect the levels of access to and from those facilities (e.g., the Plan may affect the available roadway infrastructure and the levels of traffic congestion around the Modesto City-County Airport). Thus, significant impacts on the rail, water, or air transportation systems would occur if the project would substantially change physical access to those facilities in a manner that would affect their operations negatively.

Section 15130 of the State CEQA Guidelines provides that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency is required to identify facts and analysis supporting this conclusion.

As discussed above, the traffic study prepared for the Master EIR update was based on the TPPG Model (Appendix A). The study area for this model covers all of Stanislaus County. Current- and future-year road capacity was developed considering local agency general plans, capital improvement programs, and the STIP.

The UAGP traffic and circulation element and the amendments being proposed are consistent with the RTP. StanCOG's current population projection for Modesto in 2025 is 439,750. This is within about 2 percent of the City's estimated holding capacity under the UAGP, approximately 428,000 residents.

The EIR prepared for StanCOG's 2007 RTP analyzed the potential impacts of the proposed RTP road network improvements. StanCOG analyzed future traffic volumes to 2025 based on its travel demand model. Significance findings were based on whether the RTP projects would result in an LOS in excess of LOS D in urban areas and LOS C in rural areas of the county.

StanCOG identified numerous significant and unavoidable impacts that would result from its 2007 RTP. Although the 2007 RTP generally represents a cumulative look at regional transportation (and its EIR represents a cumulative assessment of regional projects), not all of the significant impacts identified in the 2007 RTP EIR apply to Modesto. The significant impacts identified in the

2007 RTP EIR are summarized below. Where the UAGP's impact is less than significant, that is noted parenthetically.

1. Potential for conflicts between highway projects and relevant land use plans. (This impact is less than significant because of policies TC-1, TC-17, and TC-20 above.)
2. Potential for growth inducement or acceleration of development because of highway and local road projects.
3. Potential for displacement of substantial numbers of existing housing or people because of highway projects and local road projects. (This impact is less than significant because of policy TC-25 above.)
4. Loss or disturbance of riparian habitats, disturbance or loss of waters of the United States (including wetlands), and potential disturbance or loss of special-status plant populations and wildlife species and their habitat.
5. Demolition and relocation of historic resources.
6. Substantial increase in traffic in relation to the existing traffic load and capacity of the street system, including a violation, either individually or cumulatively, of an LOS standard established by the County CMP for designated roads and highways.
7. Creation of need for capacity-enhancing alterations to existing facilities.
8. Increase in operational emissions of oxides of nitrogen (NO_x) and particulate matter 10 microns or less in diameter (PM₁₀).
9. Exposure of noise-sensitive land uses to construction and operational noise from highway projects and local road projects.
10. Exposure of noise-sensitive land uses to temporary noise from the construction of bicycle and transit projects.
11. Exposure of noise-sensitive land uses to operational noise from rail projects.
12. Exposure of noise-sensitive land uses to construction and operational noise from aviation projects.
13. Increase in energy consumption associated with the operation of highway projects, rail improvements, and aviation facilities.
14. Severe contrast with existing neighborhood or area character caused by highway and transit projects.

Modesto, by virtue of its position as Stanislaus County's largest city, would contribute to each of the above cumulative impacts. In the two instances noted above, the city's contribution would be less than considerable because of mitigating policies. Otherwise, the impacts will be significant and unavoidable.

5. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

The updated Master EIR has analyzed traffic impacts on the basis of the generalized proposals in the UAGP and the proposed UAGP amendments. The assumptions made for the TPPG Model are

based on types of land uses, so although individual projects actually may vary from these general assumptions, these individual variations tend to “even out” across the city. Nonetheless, where an individual project exceeds the land use intensity established in the UAGP and traffic generation assumptions made in the Master EIR, it may result in site-specific impacts that were not analyzed fully here. These impacts include those listed below.

- a. Project-specific impacts on roadway LOS that will exceed LOS D.

The updated Master EIR has not analyzed the site-specific impacts of the future construction and operation of new transportation facilities (i.e., roads, bikeways). There is insufficient information about those future facilities to enable the City to analyze them without resorting to speculation.

- b. Project-specific roadway improvements that result in substantial changes to the physical environment.
- c. Expansion of the Modesto City-County Airport that would result in an increase in service, expansion of parking facilities, or increase in noise impacts.
- d. Construction-related impacts of bikeway and transit facilities.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines. These are measures that reduce the need for new roads, promote alternative modes to automobile travel, reduce potential traffic generation, and provide for the integrated planning of future transportation projects.

1. Measures Which Mitigate Direct Impacts

The City policies listed above (items TC-17 through TC-64) would reduce the potential impacts identified. No new mitigation measures are proposed.

2. Measures Which Mitigate Cumulative Impacts

City policies TC-17 through TC-64 would reduce the potential impacts identified above. Nonetheless, there will be cumulative impacts to which Modesto development will make a considerable contribution. This is a significant and unavoidable impact. No new mitigation measures are proposed.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines. An alternative design that would avoid or substantially lessen the significant effects of the proposed UAGP amendments is as follows.

Alternative 1 (No-Project Alternative) would not include the proposed upgrades to various roads within the City and would not include other policies intended to ameliorate traffic from increased development. As a result, it would have greater transportation impacts (i.e., more congestion) than the proposed project along those roads proposed for upgrades, as there would be less roadway capacity under Alternative 1. Alternative 2 (No Changes to Street Designations) similarly would have greater transportation impacts along those roads than the proposed project would. However, it would have less of an impact than Alternative 1 because it would include other new traffic and transportation policies that are expected to increase transit ridership, improve flow through the use of roundabouts, encourage bicycle use and walking, and provide other benefits over current policies. These include the policies listed as TC-20, TC-21, TC-22, TC-23, TC-25, TC-28, TC-29, TC-30, TC-31, TC-34, TC-35, TC-36, TC-38, TC-40, TC-41, TC-57, TC-60, TC-61, TC-62, TC-63, and TC-64 above. The Project would reduce the provision of bicycle lanes on some roadways (e.g., Dale Road) and result in bicycle lanes as opposed to a path on Bangs Avenue, both of which are significant impacts on bicycles. The project would improve bicycle facilities on Claratina Avenue, Carpenter Road, and Sylvan Avenue, which are all positive impacts.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information is provided in accordance with PRC Section 21081.6.

City policies TC-43 through TC-46 applicable in the Redevelopment and Baseline Developed Areas and TC-50 in the Planned Urbanizing Area require that subsequent projects that will exceed the allowable LOS D standard will be subject to additional analyses. Where the project would take place on a road segment projected for LOS F and would cause further substantial degradation of traffic conditions, or would involve adoption of a Specific Plan within a Comprehensive Planning District (CPD), a comprehensive traffic study may be required if the project generates more than 100 peak-hour trips or requires a general plan amendment in order to assess the level of impact of the project. Under certain circumstances, individual site-specific development will be required to prepare a site access study to identify potential impacts.

The TPPG Model used by the City to forecast impacts on the road system is based on the number of employees projected for various land uses. The number of employees is linked to trip generation rates by the model to provide projections of traffic levels. Although this is an effective approach for judging impacts on a citywide scale, it is difficult to apply to subsequent projects that are analyzed on the basis of their land uses.

Subsequent projects under the Master EIR will be evaluated by designated staff of the Department of Public Works and other city staff on a case-by-case basis in conjunction with each project's initial

study/finding of conformance review under the Master EIR. Traffic Division staff will determine whether the project requires additional traffic analysis beyond that in the Master EIR and whether additional project-specific mitigation is required.

This will allow the City to analyze the impacts of individual projects and determine whether future projects will exceed the traffic assumptions made in the Master EIR. This allows the City to monitor changes in traffic and to apply mitigation measures where necessary to avoid or reduce impacts that exceed the levels identified in the Master EIR.

Anticipated future projects, as presented in Chapter II, are within the scope of this analysis as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City or any responsible agency identified in the Master EIR.
2. The analysis of this Master EIR assumes that the following policies that reduce, avoid, or otherwise mitigate environmental effects will continue to be in effect and therefore will be applied to subsequent projects as appropriate. The policy reference numbers are listed, and the full text of these policies is found above, under *Existing Policies Applying to the Study Area*.
 - a. StanCOG policies TC-1 through TC-10.
 - b. City of Modesto policies TC-17 through TC-64.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized under PRC Section 21166, the analysis contained within this section is current as long as the following circumstances have not changed.

1. The Modesto planning area is not expanded beyond the boundaries at the date of certification of this Master EIR.
2. The City maintains its acceptable service level as LOS D where LOS E or LOS F are not projected to occur by the Master EIR.
3. The UAGP and adopted specific plans are not amended in a manner that would increase the amount of traffic generated either citywide or in particular CPDs.

Section 2

Degradation of Air Quality

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the *City of Modesto Urban Area General Plan* (UAGP) is significant.

1. Study Area for Direct Impacts

The direct impact study area is the Modesto planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The air quality information and projections provided for the study area by the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) will form the basis of information on cumulative impacts. The cumulative impact study area is the San Joaquin Valley Air Basin.

3. Existing Physical Conditions in the Study Area

a. Climate and Topography

The City of Modesto is located in Stanislaus County which is part of the San Joaquin Valley Air Basin (SJVAB). The SJVAB, which is approximately 250 miles long and averages 35 miles wide, is the second largest air basin in the state. The SJVAB is bounded by the San Joaquin-Sacramento River Delta in the north, the Sierra Nevada mountains in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The SJVAB is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The San Joaquin Valley (SJV), thus, could be considered a “bowl” open only to the north.

The SJVAB has an inland Mediterranean climate averaging over 260 sunny days per year. The valley floor experiences warm, dry summers and cool, wet winters. Summer high temperatures often exceed 100°F, averaging in the low 90s in the northern valley and high 90s in the south. In the entire SJVAB, high daily temperature readings in summer average 95°F. Over the last 30 years, the SJVAB averaged 106 days a year 90°F or hotter, and

40 days a year 100°F or hotter. The daily summer temperature variation can be as high as 30°F.

In winter, as the cyclonic storm track moves southward, the storm systems moving in from the Pacific Ocean bring a maritime influence to the SJVAB. The high mountains to the east prevent the cold, continental air masses of the interior from influencing the valley. Winters are mild and humid. Temperatures below freezing are unusual. Average high temperatures in the winter are in the 50s, but highs in the 30s and 40s can occur on days with persistent fog and low cloudiness. The average daily low temperature is 45°F.

Although marine air generally flows into the basin from the San Joaquin River Delta, the region's topographic features restrict air movement through and out of the basin. The Coastal Range hinders wind access into the SJVAB from the west, the Tehachapis prevent southerly passage of air flow, and the Sierra Nevada range is a significant barrier to the east. These topographic features result in weak air flow which becomes blocked vertically by high barometric pressure over the SJVAB. As a result, the SJVAB is highly susceptible to pollutant accumulation over time. Most of the surrounding mountains are taller than the normal height of summer inversion layers (1,500–3,000 feet).

b. Existing Air Quality Conditions

(1) Air Quality Pollutants

The federal and state governments have established ambient air quality standards for six criteria pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter, and lead. Ozone and particulate matter 10 microns or less in diameter (PM₁₀) are generally considered to be regional pollutants, as these pollutants or their precursors affect air quality on a regional scale. Pollutants such as CO, NO₂, SO₂, and lead are considered to be local pollutants that tend to accumulate in the air locally. PM₁₀ is considered to be a localized pollutant as well as a regional pollutant. In Modesto, PM₁₀ and ozone are of particular concern.

(a) Ozone

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. It is a severe eye, nose, and throat irritant. Ozone also attacks synthetic rubber, textiles, plants, and other materials and can cause extensive cell damage and leaf discoloration in plants. It reduces a plant's ability to photosynthesize, which can in turn reduce crop yields.

Ozone is not emitted directly into the air, but is formed by a photochemical reaction in the atmosphere. Ozone precursors, which include reactive organic gases (ROG) and oxides of nitrogen (NO_x), react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. The ozone precursors, ROG and NO_x, are

emitted by stationary combustion engines and mobile sources, such as in construction equipment.

State standards for ozone have been set for both 1- and 8-hour averaging times, and federal standards for ozone have been set for an 8-hour averaging time. The state requires that a 1-hour ozone standard of 0.09 parts per million (ppm) not be exceeded. The state 8-hour ozone standard is 0.070 ppm, and the federal 8-hour ozone standard is 0.08 ppm, not to be exceeded more than three times in any 3-year period. As shown in Table V-2-1b, during the three most recent years for which data is available, the monitoring station has exceeded state 1-hour standards for ozone on 31 occasions and has exceeded federal 8-hour standards on 14 occasions.

(b) Carbon Monoxide

Carbon monoxide is essentially inert to plants and materials but can have significant effects on human health. CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. Effects on humans range from slight headaches to nausea to death.

State and federal CO standards have been set for both 1-hour and 8-hour averaging times. The state 1-hour standard is 20 ppm by volume, and the federal 1-hour standard is 35 ppm. The state 8-hour standard for CO is 9.0ppm, and the federal 8-hour standard for CO is 9ppm. The CO monitoring data collected for the three most recent years for which data are available show no violations of the state or federal CO standards.

Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

(c) Inhalable Particulates

Inhalable particulates can damage human health and retard plant growth. Health concerns associated with suspended particulate matter focus on those particles small enough to reach the lungs when inhaled. Particulates also reduce visibility and corrode materials. Particulate emissions are generated by a wide variety of sources, including agricultural activities, industrial emissions, dust suspended by vehicle traffic and construction equipment, and secondary aerosols formed by reactions in the atmosphere.

The federal and state ambient air-quality standard for particulate matter applies to two classes of particulates: PM10 and particulate matter 2.5 microns or less in diameter (PM2.5). The state PM10 standards are 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as a 24-hour average and 20 $\mu\text{g}/\text{m}^3$ as an annual arithmetic mean. The federal PM10 standards are 150 $\mu\text{g}/\text{m}^3$ as a 24-hour average and 50 $\mu\text{g}/\text{m}^3$ as an

annual arithmetic mean. The federal PM_{2.5} standards are 15 $\mu\text{g}/\text{m}^3$ for the annual average and 65 $\mu\text{g}/\text{m}^3$ for the 24-hour average. The state PM_{2.5} standard is 12 $\mu\text{g}/\text{m}^3$ as an annual arithmetic mean.

(2) Toxic Air Contaminants

TACs are pollutants that may be expected to result in an increase in mortality or serious illness, or that may pose a present or potential hazard to human health. Health effects of TACs include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death.

Toxic air contaminants, such as asbestos, can be emitted during demolition of buildings containing toxic contaminants, and during operation of industries that utilize toxic substances. The Federal and State governments have implemented a number of programs to control toxic air emissions. The Federal Clean Air Act provides a program for the control of hazardous air pollutants. The California legislature has enacted programs including the Tanner Toxics Act (AB1807), the Air Toxics Hot Spot Assessment Program (AB2588), the Toxics Emissions Near Schools Program (AB3205), and the Disposal Site Air Monitoring Program (AB3374).

The SJVAPCD has developed an Integrated Air Toxic Program. This program integrates both State and Federal requirements and is aimed at protecting public health. The District is implementing rules to control emissions from specific sources of toxic air pollutants. As part of the District's Risk Management Policy, certain businesses are required to obtain a permit to emit toxic air pollutants.

In 1998, the California Air Resources Board (ARB), in conjunction with the California Environmental Protection Agency (Cal-EPA), classified diesel particulate as a toxic air contaminant. Particulate matter and other gases including NO_x are air pollutants emitted by diesel engines. Heavy-duty trucks, buses, and heavy off-road engines are key sources of NO_x emissions within the Valley. In addition to nitrogen oxides, particulate matter, and other gases from diesel exhaust contain potential cancer-causing substances such as arsenic, benzene, formaldehyde, nickel, and polycyclic aromatic hydrocarbons.

In order to reduce the particulate matter, NO_x, and sulfur oxide (SO_x) emissions from diesel engines, the ARB has adopted many protective regulations. These include:

- Low sulfur/low diesel fuel requirement that reduces particulate matter, NO_x, and SO_x emissions.
- Emission standards that restrict the amount of particulate matter emitted by new diesel trucks, buses, cars, and heavy-duty trucks.
- Emission standards for NO_x emissions from diesel cars, trucks and buses.
- Roadside testing of heavy-duty on-road vehicles for excessive particulate emissions.
- Fleet inspection and maintenance of heavy-duty vehicles.

- Emission standards that restrict the amount of particulate matter and that can be emitted from many diesel utility engines built after 1995.
- Provision of funds for Carl Moyer Memorial Air Quality Standards Attainment Program, which provides grants for the incremental cost of lower-emission diesel engines for heavy-duty vehicles.
 - Low sulfur/low diesel fuel requirement for locomotives.
 - Reduction of diesel fuel sulfur content to no more than 15 ppm.
 - Use of electric particulate filter to reduce emissions by 85 percent to PM emission levels of no more than 0.01 grams per brake horsepower-hour (g/bhp-hr).

While the SJVAPCD does not have the authority to regulate vehicle tailpipe emissions, the District has used a variety of funds including funds from the state's "Carl Moyer Program" to provide the Heavy-Duty Engine Incentive Program. The latter program provides grants to cover part of the cost of lower-emission engines in order to help reduce diesel emissions from these sources.

(3) Greenhouse Gases and Climate Change/Global Warming

Global climate change is a problem caused by combined worldwide emissions of greenhouse gases (GHGs), and mitigating global climate change will require worldwide solutions. Combined gases in Earth's atmosphere, called atmospheric GHGs, trap infrared radiation emitted from Earth's surface that otherwise would escape into space. This phenomenon, known as the "greenhouse effect," keeps Earth's atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life. Increases in these gases lead to more absorption of radiation and further warm the lower atmosphere, thereby increasing evaporation rates and temperatures near the surface. Emissions of the GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and to contribute to what is termed "global warming," a trend of unnatural warming of Earth's natural climate.

This phenomenon and the UAGP's potential impacts are discussed in Section V-21, Climate Change.

(4) Attainment Status

Areas such as the San Joaquin Valley are classified as either attainment or nonattainment with respect to state and federal ambient air quality standards. These classifications are determined by comparing actual monitored air pollutant concentrations to state and federal standards. The pollutants of greatest concern in this valley are ozone and inhalable particulate matter. The state and federal ambient air quality standards are summarized in Table V-2-1a. Table V-2-1b summarizes the local air quality monitoring data taken from the city of Modesto.

The U.S. Environmental Protection Agency (EPA) has classified Stanislaus County as being a nonattainment area for the 8-hour ozone standard. For the CO standard, the EPA has classified Stanislaus County as an attainment/unclassified maintenance area. The EPA has classified Stanislaus County as a nonattainment area for the PM_{2.5} and PM₁₀ standards (U.S. Environmental Protection Agency 2007a).

Table V-2-1a. State and Federal Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard (parts per million)		Standard (micrograms per cubic meter)		Violation Criteria	
			California	National	California	National	California	National
Ozone ^a	O ₃	1 hour	0.09	N/A	180	N/A	If exceeded	N/A
		8 hours	0.070	0.08	137	157	If exceeded	If fourth highest 8-hour concentration in a year, averaged over 3 years, is exceeded at each monitor within an area
Carbon monoxide (Lake Tahoe only)	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
		8 hours	6	N/A	7,000	N/A	If equaled or exceeded	N/A
Nitrogen dioxide	NO ₂	Annual average	N/A	0.053	N/A	100	N/A	If exceeded on more than 1 day per year
		1 hour	0.25	N/A	470	N/A	If exceeded	N/A
Sulfur dioxide	SO ₂	Annual average	N/A	0.03	N/A	80	N/A	If exceeded
		24 hours	0.04	0.14	105	365	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.25	N/A	655	N/A	If exceeded	N/A
Hydrogen sulfide	H ₂ S	1 hour	0.03	N/A	42	N/A	If equaled or exceeded	N/A
Vinyl chloride	C ₂ H ₃ Cl	24 hours	0.01	N/A	26	N/A	If equaled or exceeded	N/A
Inhalable particulate matter	PM10	Annual arithmetic mean	N/A	N/A	20	50	N/A	If exceeded at each monitor within area
		24 hours	N/A	N/A	50	150	If exceeded	If exceeded on more than 1 day per year
	PM2.5	Annual arithmetic mean	N/A	N/A	12	15	N/A	If 3-year average from single or multiple community-oriented monitors is exceeded
		24 hours	N/A	N/A	N/A	65	N/A	If 3-year average of 98th percentile at each population-oriented monitor within an area is exceeded
Sulfate particles	SO ₄	24 hours	N/A	N/A	25	N/A	If equaled or exceeded	N/A
Lead particles	Pb	Calendar quarter	N/A	N/A	N/A	1.5	N/A	If exceeded no more than 1 day per year
		30-day average	N/A	N/A	1.5	N/A	If equaled or exceeded	N/A

Notes: All standards are based on measurements at 25°C and 1 atmosphere pressure; National standards shown are the primary (health effects) standards; N/A = not applicable.

^a The U.S. Environmental Protection Agency (EPA) recently replaced the 1-hour ozone standard with an 8-hour standard of 0.08 part per million. The EPA issued a final rule that revoked the 1-hour standard on June 15, 2005. However, the California 1-hour ozone standard will remain in effect.

Source: California Air Resources Board 2006.

Table V-2-1b. Ambient Air Quality Monitoring Data Measured at the Modesto 14th Street Monitoring Station

Pollutant Standards	2004	2005	2006
Ozone			
Maximum 1-hour concentration (ppm)	0.104	0.115	0.120
Maximum 8-hour concentration (ppm)	0.084	0.094	0.097
Number of days standard exceeded ^a			
CAAQS 1-hour (>0.09 ppm) CV	2	15	14
NAAQS 8-hour (>0.08 ppm)	0	6	8
Carbon Monoxide (CO)			
Maximum 8-hour concentration (ppm)	2.98	2.89	3.73
Maximum 1-hour concentration (ppm)	4.6	3.7	6.9
Number of days standard exceeded ^a			
NAAQS 8-hour (≥ 9.0 ppm)	0	0	0
CAAQS 8-hour (≥ 9.0 ppm)	0	0	0
NAAQS 1-hour (≥ 35 ppm)	0	0	0
CAAQS 1-hour (≥ 20 ppm)	0	0	0
Particulate Matter (PM10)^b			
National ^c maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	80.0	93.0	96.0
National ^c second-highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	65.0	81.0	73.0
State ^d maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	79.0	97.0	102.0
State ^d second-highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	69.0	84.0	76.0
National annual average concentration ($\mu\text{g}/\text{m}^3$)	29.1	29.1	31.7
State annual average concentration ($\mu\text{g}/\text{m}^3$) ^e	29.9	29.7	31.9
Number of days standard exceeded ^a			
NAAQS 24-hour ($>150 \mu\text{g}/\text{m}^3$) ^f	0	0	0
CAAQS 24-hour ($>50 \mu\text{g}/\text{m}^3$) ^f	36.0	51.4	46.3
Particulate Matter (PM2.5)			
National ^c maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	53.0	80.0	71.0
National ^c second-highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	48.0	61.0	54.0
State ^d maximum 24-hour concentration ($\mu\text{g}/\text{m}^3$)	67.3	89.2	72.8
State ^d second-highest 24-hour concentration ($\mu\text{g}/\text{m}^3$)	58.5	79.1	64.9
National annual average concentration ($\mu\text{g}/\text{m}^3$)	13.6	13.9	14.8
State annual average concentration ($\mu\text{g}/\text{m}^3$) ^e	13.6	14.5	15.9
Number of days standard exceeded ^a			
NAAQS 24-hour ($>65 \mu\text{g}/\text{m}^3$)	0	1	7

Sources: California Air Resources Board 2007b; U.S. Environmental Protection Agency 2007b.

Notes: CAAQS = California ambient air quality standards.

NAAQS = national ambient air quality standards.

– = insufficient data available to determine the value.

ppm = parts per million.

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

^a An exceedance is not necessarily a violation.

^b Measurements usually are collected every 6 days.

^c National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

^d State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, State statistics are based on California approved samplers.

^e State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

^f Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored.

The ARB has classified Stanislaus County as a severe nonattainment area for the 1-hour ozone standard and nonattainment for the 8-hour ozone standard. For the CO standard, the ARB has classified Stanislaus County as an attainment area. The ARB has classified Stanislaus County as a nonattainment area for the PM10 and PM2.5 standards (California Air Resources Board 2007a).

c. Regulatory Framework

The SJVAPCD administers air quality regulations developed at the federal, state, and local levels. Air quality regulations applicable to the proposed project are described below.

4. Existing Regulatory Setting in the Study Area

a. Federal Regulations

The primary legislation that governs federal air quality regulations is the Clean Air Act Amendments of 1990 (CAAA). The CAAA delegates primary responsibility for clean air to the EPA. The EPA develops rules and regulations to preserve and improve air quality, as well as delegating specific responsibilities to state and local agencies.

The EPA has established National Ambient Air Quality Standards (NAAQS) for criteria pollutants (Table V-2-1a). Criteria pollutants include CO, NO₂, SO₂, ozone, PM10, and lead.

If an area does not meet the federal NAAQS shown in Table V-2-1a, federal clean air planning requirements specify that states develop and adopt State Implementation Plans (SIPs), which are air quality plans demonstrating how air quality standards will be attained. In California, the EPA has delegated authority to prepare SIPs to the ARB, which, in turn, has delegated that authority to individual air districts.

Modesto is located within a federal nonattainment area for ozone and PM10. The SJVAPCD has adopted a SIP that addresses PM10, ozone, and the ozone precursors: NO_x and ROG_s. The SIP specifies that regional air quality standard for ozone and PM10 concentrations can be met through additional source controls and through trip reduction strategies. That SIP also establishes “emission budgets” for transportation and stationary sources. Those budgets, developed through air quality modeling, reveal how much air pollution can occur in an area without causing violations of the NAAQS.

Under EPA rules, the Regional Transportation Plan (RTP) adopted by the Stanislaus Council of Governments (StanCOG) is subject to an air quality conformity analysis. An air quality analysis tests ozone precursor emissions from the 2007 RTP against conformity budgets as defined in EPA-approved ozone attainment plans. For PM10, the test is slightly different. PM10 emissions with the project must be shown to be less than without the project (build versus no-build comparison). StanCOG and transportation project sponsors cannot implement certain transportation projects unless they come from an approved, conforming transportation plan. The purpose of conformity is to ensure that the 2007 adopted RTP helps achieve and maintain federal ozone and PM10 standards.

b. State Policies

The ARB is a regulatory board under the Cal-EPA that develops air quality regulations at the state level. These regulations mirror federal regulations by establishing industry-specific pollution controls for criteria, toxic, and nuisance pollutants. California also requires areas to develop plans and strategies for attaining state ambient air quality standards as set forth in the California Clean Air Act of 1988 (CCAA) (Table V-2-1a). ARB is also responsible for developing motor vehicle emission standards for California vehicles.

(1) California Clean Air Act (CCAA)

The CCAA of 1988 substantially added to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA focuses on attainment of the state ambient air quality standards, which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards. The CCAA requires designation of attainment and nonattainment areas with respect to state ambient air quality standards. The CCAA also requires that air districts prepare an air quality attainment plan if the district violates state air quality standards for CO, SO₂, NO₂, or ozone. No locally prepared attainment plans are required for areas that violate the state PM₁₀ standards.

The CCAA requires that the state air quality standards be met as expeditiously as practicable but, unlike the federal CAA, does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards.

The CCAA emphasizes the control of “indirect and area-wide sources” of air pollutant emissions. The California Clean Air Act gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures (TCM). The CCAA does not define *indirect and area-wide sources*. However, Section 110 of the federal CAA defines an indirect source as: “a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution. Such term includes parking lots, parking garages, and other facilities subject to any measure for management of parking supply...”

TCMs are defined in the CCAA as “any strategy to reduce trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing vehicle emissions.”

c. San Joaquin Valley Air Pollution Control District

The State of California has designated the San Joaquin Air Basin as being in severe nonattainment for ozone and in nonattainment for PM₁₀ and PM_{2.5}.

The SJVAPCD has adopted an air quality improvement plan that addresses NO_x and ROGs, both of which are ozone precursors and contribute to PM_{10} . The plan specifies that regional air quality standards for ozone and PM_{10} concentrations can be met through the use of additional source controls and trip reduction strategies. It also establishes emissions budgets for transportation and stationary sources. Those budgets, developed through air quality modeling, reveal how much air pollution can occur in an area before national ambient air quality standards are violated.

d. Air Quality Plans

Both California and the Federal government require nonattainment areas, such as the SJVAB, to reduce air pollution to healthful levels. The CCAA of 1988 and amendments to the federal CAA in 1990 required stricter air pollution control efforts than ever before. For example, the State of California must submit plans to the Federal government showing how nonattainment areas in California will meet Federal air quality standards by specific deadlines.

(1) San Joaquin Valley Air Pollution Control District 2007 Ozone Plan

With the SJVAPCD 2007 Ozone Plan, mobile and stationary sources will become subject to new and more stringent regulatory requirements. As this plan is implemented, over 50 percent of the San Joaquin Valley's population will see attainment of the 8-hour ozone standard in 2015, with over 90 percent reaching attainment in 2020.

(2) San Joaquin Valley Air Pollution Control District 2008 $\text{PM}_{2.5}$ Plan

The EPA set the first $\text{PM}_{2.5}$ NAAQS in 1997 at $15 \mu\text{g}/\text{m}^3$ for the annual standard and $65 \mu\text{g}/\text{m}^3$ for the daily standard. The SJV attains the $65 \mu\text{g}/\text{m}^3$ daily standard based on 2004–2006 data, so the 2008 $\text{PM}_{2.5}$ Plan focuses on attaining the annual standard. The SJV's annual average is approximately 27 percent over the annual standard. In 2006, the EPA strengthened the daily standard by lowering it to $35 \mu\text{g}/\text{m}^3$. The 2008 $\text{PM}_{2.5}$ Plan will demonstrate how the SJV will attain the annual standard and will also address the new daily standard. The plan will build on the emission reduction strategy adopted in the 2007 Ozone Plan, which focuses on reducing NO_x , SO_2 , and $\text{PM}_{2.5}$. New controls that will be included in the $\text{PM}_{2.5}$ plan include more stringent restrictions on residential wood burning and space heating, more stringent limits on $\text{PM}_{2.5}$, SO_2 , and NO_x emissions from industrial sources, measures to reduce emissions from prescribed and agricultural burning, and more effective work practices to control $\text{PM}_{2.5}$ in fugitive dust. This plan is due to the EPA in 2008 (San Joaquin Valley Air Pollution Control District 2008).

(3) REMOVE II Program

The Reduce Motor Vehicle Emissions (REMOVE) Program was the District's first incentive program. It began its first phase in 1992. The District has developed a new,

enhanced program (REMOVE II) that was approved by the Governing Board in February 2005. REMOVE II reduces emissions from light- and medium-duty motor vehicles in the District. The purpose of this grant program is to assist the District in attaining air quality standards. This is accomplished by allocating funds to cost-effective projects that have the greatest motor vehicle emission reductions, thereby creating long-term air quality benefits for the San Joaquin Valley. All projects must have a direct air quality benefit to the District. Any portion of a project that does not directly benefit the District within its boundaries is not allowed for funding or in calculating emission reductions. Principal components of the REMOVE II Program are the Light- and Medium-Duty Vehicle Component, the E-Mobility (Telecommunications) Component, the Bicycle Infrastructure Component, and the Public Transportation and Commuter Vanpool Subsidy.

(4) Light and Medium-Duty Vehicle Incentive Program

In 2002, the District completed a highly successful Light and Medium-Duty Vehicle Incentive Program. The program provided incentives for the purchase of low-emission passenger vehicles, light trucks, small buses, and trucks less than 14,000 pounds gross vehicle weight. The purpose of the program was to encourage the early introduction of low-emission vehicles in the District. The program paid between \$1,000 and \$3,000 per vehicle depending on the emission certification level and size of the vehicle. Vehicles were required to be powered by alternative fuel, electricity, or hybrid electric engines/motors. Emission reductions from vehicles purchased under this program were claimed under ARB's Low Emission Vehicle program. These types of vehicle projects are now funded through the REMOVE II Program.

(5) San Joaquin Valley Air Pollution Control District Regulation VIII (Fugitive PM10 Prohibitions)

Regulation VIII is a series of rules (Rules 8011–8081) designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction, road construction, bulk materials storage, landfill operations, and other activities. These rules correspond to the following categories:

- Rule 8011: General Requirements;
- Rule 8021: Construction, Demolition, Excavation, Extraction and Other Earthmoving Activities;
- Rule 8031: Bulk Materials;
- Rule 8041: Carryout and Trackout;
- Rule 8051: Open Areas;
- Rule 8061: Paved and Unpaved Roads;
- Rule 8071: Unpaved Vehicle/Equipment Traffic Areas; and
- Rule 8081: Agricultural Sources.

(6) San Joaquin Valley Air Pollution Control District Rule 9510 (Indirect Source Review)

This rule fulfills the SJVAPCD's emission reduction commitments in the PM10 and Ozone attainment plans through emission reductions from the construction and use of development projects through design features and onsite measures. Rule 9510 requires emission reductions construction and operational emissions. For construction emissions, Rule 9510 requires a 20 percent reduction of total NO_x emissions and a 45 percent reduction of the total PM10 exhaust emissions. For operational emissions, Rule 9510 requires 33.3 percent of the project's operational baseline NO_x and 50 percent of the project's operational baseline PM10 emissions be reduced over a period of 10 years. If the required emissions reductions are not achieved through traditional means, projects may purchase offsets on a per ton basis from the SJVAPCD through Rule 9510's offsite emission reduction fee program to comply with the requirements of Rule 9510. Rule 9510 applies to any applicant that seeks to gain a final discretionary approval for a development project, or any portion thereof, which upon full buildout will include any one of the following:

- 50 residential units;
- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above.

Rule 9510 requires the implementation of control measures or the purchasing of emissions offsets to mitigate construction-related NO_x and PM10 emissions from roadway projects in excess of 2.0 tons. Compliance with Rule 9510 is separate from the CEQA process, though the control measures used to comply with Rule 9510 may be used to mitigate CEQA impacts (Barber pers. comm.).

In addition, the project applicant may enter into a development mitigation contract (also known as an air quality mitigation agreement) with the SJVAPCD to reduce project emissions to a less-than-significant level (Barber pers. comm.). With this contract, the project applicant may enter into a voluntary agreement with the SJVAPCD to mitigate/reduce project emissions beyond the requirements of Rule 9510, through the payment of fees (on a per-ton basis) to the SJVAPCD. If the fees purchased through the development mitigation contract are sufficient to offset project-related emissions to below the SJVAPCD's thresholds, then project emissions would be considered less than significant (Barber pers. comm.).

d. City of Modesto Policies

The following policies apply throughout the General Plan area. This list serves to describe the circumstances under which the MEIR analyzed this environmental topic.

A discrete reference number is assigned to each policy listed to facilitate, where appropriate, their incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., AQ = Air Quality).

AQ-1: The City of Modesto shall implement measures to reduce motor vehicle use and related ozone precursor and PM10 emissions through changes to the transportation infrastructure. Potential measures to be implemented may include those measures listed in Table V-2-2 in the Final Master Environmental Impact Report. (General Plan Policy VII-H.2[a])

AQ-2: **Table V-2-2.** Air Quality Measures Involving Changes to Transportation Infrastructure

Table V-2-2. Air Quality Measures Involving Changes to Transportation Infrastructure

(Note: In order to maintain consistency with the General Plan reference, this table does not follow the nomenclature used for tables elsewhere in this Master EIR.)

1. The following mitigation measures shall be implemented by the City of Modesto, and incorporated into development plans and public facility plans as appropriate:
 - a. The City of Modesto shall vigorously pursue and use state and federal funds earmarked for bicycle and transit improvements.
 - b. The City shall establish transit services on key arterials to locate stops within ¼ mile of residences/work places, and reevaluate quality and frequency of services, as appropriate as development progresses and demand increases.
 - c. The City of Modesto shall consider measures to increase the capacity of the existing road network prior to constructing more capacity (additional lanes, new freeways, etc.).
2. The following measures should be strongly encouraged, and incorporated into development plans and public facility plans, when it is shown to be appropriate and feasible:
 - a. The City of Modesto shall ensure that a comprehensive system of bikeways and pedestrian paths is planned and constructed in accordance with an adopted City/County Regional plan. The City of Modesto shall ensure that regional and commuter bikeways are extended to serve new development consistent with the City of Modesto Non-Motorized Transportation Plan and the Regional Non-Motorized Transportation Plan.
 - b. The City of Modesto shall plan for a multi-modal transportation system that meets the mobility needs of the community and improves air quality. The City of Modesto shall plan for multi-modal transfer sites that incorporate auto parking areas, bike parking, transit, pedestrian and bicycle paths, and park-and-ride points.
 - c. The City of Modesto shall ensure that upgrades to existing roads (widening, curb and gutter, etc.) include bicycle and pedestrian improvements in their plans and implementation as outlined in the City of Modesto Non-Motorized Transportation Plan and the Regional Non-Motorized Transportation Plan.
 - d. The City of Modesto should design all arterial and collector streets planned as transit routes to allow the efficient operation of public transit.
 - e. The City of Modesto should plan park-and-ride lots at suitable locations serving long distance and local commuters. The City of Modesto should work with Caltrans and transit providers to identify park-and-ride sites with convenient access to public transit.
 - f. The City of Modesto shall provide a funding mechanism for maintenance of the non-motorized transportation system as each project is developed.

Source: City of Modesto 2000.

AQ-3: The City of Modesto and project proponents shall implement measures to reduce vehicle use and associated emissions related to existing and future land use development in the City of Modesto. Potential measures to be implemented may include those measures listed in Table V-2-3 in the Final Master Environmental Impact Report. (General Plan Policy VII-H.2[b])

AQ-4: Table V-2-3. Air Quality Measures to Reduce Vehicle Use

Table V-2-3. Air Quality Measures to Reduce Vehicle Use

(Note: In order to maintain consistency with the General Plan reference, this table does not follow the nomenclature used for tables elsewhere in this Master EIR.)

1. The following mitigation measures shall be implemented by the City of Modesto, and incorporated into development plans and public facility plans as appropriate:
 - a. The City of Modesto shall work with employers and developers to provide employees and residents with attractive, less-polluting, and affordable transportation alternatives (such as accommodations for bicycle use as outlined in the City of Modesto Non-Motorized Transportation Plan, transit use subsidies for employees, ridesharing incentives, etc.).
 - b. The City of Modesto shall consider air quality and mobility when reviewing any proposed change to the land use pattern of this community.
 - c. The City of Modesto shall plan adequate neighborhood commercial shopping areas to serve new residential development.
 - d. Subdivision designs shall provide neighborhood parks, community parks, trails, Class I and II bike trails in proximity to activity centers such as schools, libraries, community centers, regional parks, and Class I trail routes as outlined in the City of Modesto Non-Motorized Transportation Plan.
 - e. The City of Modesto shall plan the area around new commuter and mainline rail stations to provide convenient and safe pedestrian and bicycle access, and connections to the transit system.
 - f. The City shall endeavor to fully develop all Class I, II and III non-motorized transportation trails, lanes and routes as outlined in the City of Modesto Non-Motorized Transportation Plan.
2. The following measures should be strongly encouraged, and incorporated into development plans and public facility plans, when it is shown to be appropriate and feasible
 - a. Projects within the City of Modesto should propose pedestrian or transit-oriented designs at suitable locations.
 - b. The City of Modesto should work to preserve and enhance existing neighborhoods and commercial districts having transit and pedestrian-oriented designs.
 - c. The City of Modesto should plan areas within ¼ mile of locations identified as transit hubs and commercial centers for higher density development.
 - d. Higher housing densities in areas served by the full range of urban services should be utilized within the City of Modesto.
 - e. Mixed-use developments should provide commercial services such as day care centers, restaurants, banks, and stores near employment centers.
 - f. The development of shopping areas should be located within walking distance of high density residential neighborhoods.
 - g. The City of Modesto should protect pedestrian-oriented commercial areas from development that is incompatible in design, scale, or use.

- h. Regional shopping malls/centers should be located at sites capable of support by a full range of transportation options.
- i. The City of Modesto should require new major activity centers, office, and commercial development to provide secure bicycle storage and parking facilities.
- j. The City should establish TCMs and mandatory trip reduction and monitoring/reporting programs for all development within the BP designation. Such programs shall ignore property boundaries so that paratransit and carpooling opportunities are cooperative and in-common.
- k. The City of Modesto should work to establish public/private partnerships to develop satellite and neighborhood work centers for telecommuting.

Source: City of Modesto 2003.

AQ-5: The City of Modesto shall implement measures to reduce emissions associated with energy use by residences and businesses. Potential measures to be implemented may include those measures listed in Table V-2-4 in the Final Master Environmental Impact Report. (General Plan Policy VII-H.2[c])

AQ-6: TableV-2-4. Air Quality Measures Related to Energy Use

Table V-2-4. Air Quality Measures Related to Energy Use

(Note: In order to maintain consistency with the General Plan reference, this table does not follow the nomenclature used for tables elsewhere in this Master EIR.)

1. The following mitigation measures shall be implemented by the City of Modesto, and incorporated into development plans and public facility plans as appropriate:
 - a. The City of Modesto shall work with local energy providers on voluntary incentive-based programs to encourage the use of energy efficient designs and equipment.
 - b. The City shall not allow new residential development to include conventional open-hearth fireplaces. With designs of new residential construction that include fireplaces, the City shall encourage installation of California Energy Commission (CEC) certified natural gas appliances over wood-burning appliances. The City shall limit the number of allowable EPA-approved/Oregon-certified wood-burning appliances to one per new residence.
2. The following measures should be strongly encouraged, and incorporated into development plans and public facility plans, when it is shown to be appropriate and feasible
 - a. The City of Modesto should cooperate with the local building industry, utilities, and the SJVAPCD to develop and adopt new building efficiency practices (standards) for commercial, industrial, and residential buildings to reduce energy and water consumption below the amounts which would be used if the buildings only complied with the existing state standard.
 - b. The City could implement a program to offer incentives for new developments that are more energy efficient than state energy standards at the time the building permit is issued. Incentives may include reduced permit fees or expedited permit processing. Through an annual awards program the City could recognize outstanding projects.
 - c. The City should ensure that new residential construction and residential redevelopment include low-NO_x space heaters and water heaters.

Source: City of Modesto 2003.

AQ-7: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should consult with the SJVAPCD during CEQA review for discretionary projects with the potential for causing adverse air quality impacts. (General Plan Policy VII-H.2[h])

AQ-8: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should consider supporting investment in geographic information system technology. (General Plan Policy VII-H.2[i])

AQ-9: The City of Modesto recognizes the efforts of the San Joaquin Valley Air Pollution Control District (SJVAPCD) to identify the cumulative transportation and air quality impacts of all general plan amendments approved during the previous year. This measure is intended to track the effectiveness of current air-quality-related programs and guide revision to these programs through periodic review of cumulative air quality impacts in the City.

The City of Modesto encourages employers to implement the following measures:

- (1) In-house matching services (for carpools and vanpools) at employers with over 100 weekday employees, or at large development sites occupied by several smaller employers, or coordination with Caltrans' "Commuter Computer" program;
- (2) Employer-based dissemination of commute information;
- (3) Employer subsidies for transit passes and incorporation of transit stop facilities into site design;
- (4) A program to guarantee rideshare participants a ride home in case of emergency;
- (5) Flex-time scheduling;
- (6) Site plan design that encourages pedestrian movement between adjacent land uses;
- (7) Incentives such as preferred parking for carpools;
- (8) Encouraging submission of site plans featuring mixed land uses or "neo-traditional" design; and
- (9) Encouraging employers to experiment with telecommuting options, where feasible. (General Plan Policy VII-H.2[d])

The following policies are intended to reduce impacts through inter-agency coordination.

AQ-10: The City of Modesto shall work with neighboring jurisdictions and affected agencies to address cross-jurisdictional and regional transportation and air quality issues. (General Plan Policy VII-H.2[e])

AQ-11: The City of Modesto shall coordinate with other jurisdictions and other regional agencies in the San Joaquin Valley to establish parallel air quality programs and implementation measures (trip reduction ordinances, indirect source programs, etc.). (General Plan Policy VII-H.2[f])

AQ-12: The City of Modesto shall implement measures to reduce emissions associated with future development through the CEQA review process. Table V-2-5 in the MEIR describes those measures to be implemented, as well as additional measures which may be implemented at the discretion of the City. (General Plan Policy VII-H.2[g])

AQ-13: **Table V-2-5.** Air Quality Measures Implemented Through the CEQA Review Process

Table V-2-5. Air Quality Measures Implemented Through the CEQA Review Process

(Note: In order to maintain consistency with the General Plan reference, this table does not follow the nomenclature used for tables elsewhere in this Master EIR.)

- | |
|--|
| <ol style="list-style-type: none"> 1. The following mitigation measures shall be implemented by the City of Modesto: <ol style="list-style-type: none"> a. The City of Modesto shall consult with the San Joaquin Valley Unified Air Pollution Control District during CEQA review for all discretionary projects not previously reviewed by the District. The City of Modesto shall determine project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD. 2. The following measures should be strongly encouraged, and incorporated into development plans and public facility plans, when it is shown to be appropriate and feasible <ol style="list-style-type: none"> a. The City of Modesto should require the local CO “hot spot” modeling for individual projects that would substantially affect high-volume intersections such that Levels of Service would degrade to “F” or where Levels of Service without the project are already “F.” b. The City should ensure that air quality impacts identified during the CEQA review are consistently and fairly mitigated c. The City of Modesto should ensure that all air quality mitigation measures are feasible, implementable, and cost effective. |
|--|

Source: City of Modesto 2003.

The following General Plan policies are intended to reduce air quality impacts through public outreach and education programs.

AQ-14: The City of Modesto shall work to improve the public’s understanding of the land use, transportation, and air quality link. (General Plan Policy VII-H.2[j])

AQ-15: The City of Modesto shall encourage local public and private groups to provide air quality education programs. (General Plan Policy VII-H.2[k])

The following policies are intended to minimize exposure of the public to toxic air contaminants (TACs) and noxious odors from industrial, manufacturing, and processing facilities.

AQ-16: The City of Modesto should encourage new pollution sources such as, but not limited to, industrial, manufacturing, and processing facilities to be located an adequate distance (based on pollutant dispersion characteristics, site orientation, prevailing winds, etc.) from residential areas and other sensitive receptors. (General Plan Policy VII-H.2[l])

AQ-17: The City of Modesto should implement measures to reduce the temporary, yet potentially significant, local air quality impacts from construction activities. Potential measures to be implemented may include those measures listed in Table V-2-6 in the Master Environmental Impact Report. (General Plan Policy VII-H.2[m])

AQ-18: Table V-2-6. Air Quality Measures to Reduce Construction Impacts

Table V-2-6. Air Quality Measures to Reduce Construction Impacts

(Note: In order to maintain consistency with the General Plan reference, this table does not follow the nomenclature used for tables elsewhere in this Master EIR.)

- | |
|--|
| <ol style="list-style-type: none"> 1. The following mitigation measures shall be implemented by the City of Modesto, and incorporated into development plans and public facility plans as appropriate: <ol style="list-style-type: none"> a. The City of Modesto shall work with the SJVAPCD to reduce particulate matter emissions from construction, grading, excavation, and demolition to the maximum extent feasible. b. If required by Regulation VIII (Fugitive Dust Rules) of the San Joaquin Valley Unified Air Pollution Control District, the City of Modesto shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use. 2. The following measures should be strongly encouraged, and incorporated into development plans and public facility plans, when it is shown to be appropriate and feasible <ol style="list-style-type: none"> a. The City of Modesto should reduce PM10 emissions from City-maintained roads to the maximum extent feasible b. The City of Modesto should adopt a standard set of construction-related mitigation measures that can be adapted to all new, non-emergency construction projects in the City. |
|--|

Source: City of Modesto 2000.

AQ-19: The City of Modesto shall require residential development projects and projects categorized as sensitive receptors (hospitals, schools, convalescent homes, etc.) to be located an adequate distance from existing and potential sources of toxic and/or odorous emissions such as freeways, major arterials, industrial sites, refuse transfer or disposal sites and hazardous material locations. (General Plan Policy VII-H.2[n])

The following policies are intended to accurately determine and fairly mitigate the local and regional air quality impacts of projects proposed in the City of Modesto:

AQ-20: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should determine project air quality impacts using analysis methods and significance thresholds recommended by the SJVAPCD. (General Plan Policy VII-H.2[o])

AQ-21: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should ensure that air quality impacts identified during CEQA review are consistently and fairly mitigated. (General Plan Policy VII-H.2[p])

AQ-22: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should ensure all air quality mitigation measures are feasible, implementable, and cost effective. (General Plan Policy VII-H.2[q])

AQ-23: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should identify the cumulative transportation and air quality impacts of all general plan amendments approved during the previous year. (General Plan Policy VII-H.2[r])

AQ-24: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should reduce air quality impacts of development projects that may be insignificant by themselves, but cumulatively are significant. These impacts will be addressed in the initial studies required for future development. Where necessary to reduce cumulative contributions, project-specific mitigation measures will be identified and required as part of project approval. (General Plan Policy VII-H.2[s])

AQ-25: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should encourage innovative mitigation measures to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties. (General Plan Policy VII-H.2[t])

AQ-26: Review of new development shall be coordinated with SJVAPCD staff to ensure all projects subject to the SJVAPCD Rule 9510 (Indirect Source Review) comply fully with the rule. This rule fulfills the SJVAPCD's emission reduction commitments in the PM10 and Ozone Attainment Plans through emission reductions from the construction and use of development projects through design features and onsite measures. Rule 9510 applies to any applicant that seeks to gain a final discretionary approval for a development project, or any portion thereof, which upon full buildout will include any one of the following:

- 50 residential units
- 2,000 square feet of commercial space
- 25,000 square feet of light industrial space
- 100,000 square feet of heavy industrial space
- 20,000 square feet of medical office space
- 39,000 square feet of general office space
- 9,000 square feet of educational space
- 10,000 square feet of government space
- 20,000 square feet of recreational space
- 9,000 square feet of space not identified above. (General Plan Policy VII-H.2[u])

The following policies are consistent with the SJVAPCD's Air Quality Guidelines for General Plans and are intended to integrate land use planning, transportation planning, and air quality planning to make the most efficient use of public resources and to create a healthier and more livable environment:

AQ-27: The City of Modesto should consider air quality when planning the land uses and transportation systems to accommodate the expected growth in this community. (General Plan Policy VII-H.2[v])

AQ-28: All City of Modesto submittals of transportation improvement projects to be included in regional transportation plans (RTP, RTIP, CMP, etc.) should be consistent with the air quality goals and policies of the General Plan. (General Plan Policy VII-H.2[w])

AQ-29: The City of Modesto should consult with transit providers to determine project impacts on long range transit plans and ensure that impacts are mitigated. (General Plan Policy VII-H.2[x])

AQ-30: The City of Modesto should work with the Housing Authority, transit providers, and developers to encourage the construction of low income housing developments that use transit-oriented and pedestrian-oriented design principles. (General Plan Policy VII-H.2[y])

AQ-31: The City of Modesto should work with Caltrans and the Regional Transportation Planning Agency (StanCOG) to minimize the air quality, mobility, and social impacts of large scale transportation projects on existing neighborhoods. (General Plan Policy VII-H.2[z])

The following policies are consistent with the SJVAPCD's Air Quality Guidelines for General Plans and are intended for public facilities and operations to provide a model for the private sector in implementing air quality programs:

AQ-32: The City of Modesto Departments should implement employer-based trip reduction programs for their employees. (General Plan Policy VII-H.2[aa])

AQ-33: The City of Modesto's fleet vehicle operators should replace or convert conventional fuel vehicles with clean fuel vehicles as feasible, considering budgetary constraints. (General Plan Policy VII-H.2[bb])

AQ-34: The City of Modesto supports the use of teleconferencing in lieu of employee travel to conferences and meetings when feasible. (General Plan Policy VII-H.2[cc])

The following policies are intended to ensure that new development provides the facilities and programs that improve the effectiveness of transportation control measures and congestion management programs:

AQ-35: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should work with employers and developers to provide employees and residents with attractive, affordable transportation alternatives. (General Plan Policy VII-H.2[dd])

AQ-36: The City of Modesto Non-Motorized Transportation Plan (updated and adopted January 2007) provides guidelines and policies that pertain to the development of the non-motorized transportation system and is hereby incorporated into the Modesto Urban Area General Plan. These guidelines and policies in the NMTP will help contribute to air quality improvements. (General Plan Policy VII-H.2[ee])

AQ-37: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should work to establish public/private partnerships to develop satellite and neighborhood work centers for telecommuting. (General Plan Policy VII-H.2[ff])

AQ-38: To be consistent with the SJVAPCD's Air Quality Guidelines for General Plans, the City of Modesto should encourage the development of state of the art communication infrastructure linked to the rest of the world. (General Plan Policy VII-H.2[gg])

The following policies are consistent with the SJVAPCD's Air Quality Guidelines for General Plans and are intended to reduce emissions of PM10 and other particulates with local control potential:

AQ-39: The City of Modesto should work with the SJVAPCD to reduce particulate emissions from construction, grading, excavation, and demolition to the maximum extent feasible in accordance with the requirements of SJVAPCD Regulation VIII. Regulation VIII was adopted to reduce the amount of particulate matter suspended in the atmosphere as a result of emissions generated from anthropogenic (man-made) fugitive dust sources. (General Plan Policy VII-H.2[hh])

AQ-40: The City of Modesto shall require all access roads, driveways, and parking areas serving new commercial and industrial development are to be constructed with materials that minimize particulate emissions in accordance with the requirements of SJVAPCD Regulation VIII and are appropriate to the scale and intensity of use. (General Plan Policy VII-H.2[ii])

AQ-41: The City of Modesto should reduce PM10 emissions from City of Modesto maintained roads to the maximum extent feasible. (General Plan Policy VII-H.2[jj])

The following controls are required to be implemented at all construction sites:

AQ-42: All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover or vegetative ground cover. (General Plan Policy VII-H.2[kk])

AQ-43: All onsite unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. (General Plan Policy VII-H.2[l])

AQ-44: All land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. (General Plan Policy VII-H.2[mm])

AQ-45: With the demolition of buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition. (General Plan Policy VII-H.2[nn])

AQ-46: When materials are transported off site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least six inches of freeboard space from the top of the container shall be maintained. (General Plan Policy VII-H.2[oo])

AQ-47: All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at the end of each workday (the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.) (General Plan Policy VII-H.2[pp])

AQ-48: Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. (General Plan Policy VII-H.2[qq])

AQ-49: Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site and at the end of each workday. (General Plan Policy VII-H.2[rr])

AQ-50: Any site with 150 or more vehicle trips per day shall prevent carryout and trackout. (General Plan Policy VII-H.2[ss])

The following measures should be implemented at construction sites when required to mitigate significant PM10 impacts (note, these measures are to be implemented in addition to Regulation VIII requirements):

AQ-51: Limit traffic speeds on unpaved roads to 15 mph; (General Plan Policy VII-H.2[tt])and

AQ-52: Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent (1%). (General Plan Policy VII-H.2[uu])

The following measures are strongly encouraged at construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions:

AQ-53: Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site; (General Plan Policy VII-H.2[vv])

AQ-54: Install wind breaks at windward side(s) of construction areas; (General Plan Policy VII-H.2[ww])

AQ-55: Suspend excavation and grading activity when winds exceed 20 mph (regardless of windspeed, an owner/operator must comply with Regulation VIII's 20 percent (20%) opacity limitation); (General Plan Policy VII-H.2[xx])and

AQ-56: Limit the area subject to excavation, grading, and other construction activity at any one time. (General Plan Policy VII-H.2[yy])

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing General Plan areas as they annex and develop. SJVAPCD policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed, the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. San Joaquin Valley Air Pollution Control District

The SJVAPCD has implemented a number of programs and regulations that will limit cumulative air quality impacts and that are intended to bring the air basin into attainment with air quality standards over time.

b. City of Modesto Policies

The UAGP provides the following policies as described in Section A-4 above, related to air quality that when incorporated into subsequent projects will avoid or reduce impacts: AQ-1 through AQ-41.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

Thresholds of significance for air quality impacts have been established for this assessment based on the CEQA Environmental Checklist found in Appendix G of the State CEQA Guidelines.

Appendix G of the State CEQA Guidelines provide guidance for the determination of significance for a proposed project. A proposed project would result in a significant impact on air quality if it would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.
- b. Violate any air quality standard or contribute substantially to existing or projected air quality violation.
- c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors).
- d. Expose sensitive receptors to substantial pollutant concentrations.
- e. Create objectionable odors affecting a substantial number of people.

2. Thresholds of Significance Suggested by the San Joaquin Valley Air Pollution Control District

The State CEQA Guidelines further state that the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the determinations from Appendix G of the State CEQA Guidelines. The SJVAPCD has specified significance thresholds within its Guide for Assessing and Mitigating Air Quality Impacts (San Joaquin Valley Air Pollution Control District 2002) to determine air quality impacts for projects located within the SJVAB.

The SJVAPCD has determined that compliance with its Regulation VIII Fugitive PM10 Prohibitions, including implementation of all feasible control measures specified in *its Guide for Assessing and Mitigating Air Quality Impacts*, is sufficient mitigation to minimize adverse air

quality effects from construction-related PM₁₀ emissions to less-than-significant levels (San Joaquin Valley Air Pollution Control District 2002). Since the publication of the SJVAPCD's guidance manual, the SJVAPCD has revised various rules comprising Regulation VIII. Guidance from SJVAPCD staff indicates that implementation of a dust control plan would satisfy all of the requirements of SJVAPCD Regulation VIII (Cadrett pers. comm.). Further consultation with SJVAPCD staff indicates that, though explicit thresholds for construction-related emissions of ozone precursors are not enumerated in the Guide for Assessing and Mitigating Air Quality Impacts, the SJVAPCD considers a significant impact to occur when construction emissions of ROG or NO_x exceed 10 tons per year (Barber pers. comm.).

The SJVAPCD has identified the following thresholds to determine whether a project would result in a significant impact to air quality:

- expose sensitive receptors to substantial pollutant concentrations;
- produce more than 10 tons/year of ROG;
- produce more than 10 tons/year of NO_x;
- exceed NAAQS or CAAQS for CO (9 ppm 8-hour average; 20 ppm 1-hour average); or
- not comply with the SJVAPCD's Regulation VIII regarding particulate matter emissions from construction activities. Compliance with SJVAPCD Regulation VIII and the local zoning code will reduce particulate emission impacts to levels that are considered less than significant by the SJVAPCD.

3. Threshold of Significance Used by the City of Modesto

After consideration of the methodological approaches suggested by the CEQA Guidelines, the thresholds of significance recommended by the SJVAPCD (above) are used to assess air quality impacts.

4. Significant Direct Impacts

CO concentrations at sensitive receptors near congested roadways and intersections were estimated based on CALINE4 dispersion modeling. Appendix B contains a complete description of the CO model assumptions and method of analysis. Within the study area, four roadway segments for each condition were analyzed to obtain worst-case CO concentrations: segments with the highest Volume to Capacity (V/C) Ratio. Existing background CO concentrations were obtained by averaging the last five years for which complete data is available from the Modesto 14th Street monitoring station. Existing background levels for 1- and 8-hour CO were used to obtain a worse-case scenario for future conditions.

As indicated in Table V-2-7, the future conditions in the study areas are not anticipated to exceed the state 1-hour or 8-hour CO standards (listed in Table 2-1a). Consequently, the impact of the proposed general plan traffic conditions on ambient CO levels in the project area is considered less than significant.

Table V-2-7. Modeled Plan Area Carbon Monoxide Levels for Existing (2005) and Future Conditions (2025)

	Receptor ²	2005 Existing		2025 With Project	
		1-hour CO ³	8-hour CO ⁴	1-hour CO ³	8-hour CO ⁴
Kansas—Carpenter to 10 th	1	10.2	6.3	5.9	3.7
Bangs—Tully to McHenry	2	7.3	4.6	6.0	3.8
Kansas—West of SR102	3	7.7	4.8	5.6	3.6
Woodland—Carpenter to Kearney	4	8.7	5.4	5.9	3.7

¹ Background concentrations of 5.0 ppm and 3.2 ppm were added to the modeling 1-hour and 8-hour results, respectively.

² Receptors located 22 feet away from the centerline of each roadway, and 2000 feet from each other.

³ The federal and state 1-hour standards are 35 and 20 ppm, respectively.

⁴ The federal and state 8-hour standards are 9 and 9.0 ppm, respectively.

Ozone precursor, CO, particulate matter, and carbon dioxide (CO₂) emissions for 2005 conditions and future 2025 conditions were calculated using the EMFAC2007 modeling program and traffic data provided by Fehr & Peers that were developed for the Master EIR. Appendix C describes the methodology and model inputs used to model these pollutants. Table V-2-8 summarizes the results of emissions modeling for each of the revision areas under the existing general plan and the proposed general plan.

Table V-2-8. Criteria Pollutant Emissions from Mobile Sources (tons per year)

Scenario	ROG	NO _x	CO	PM10	PM2.5	CO ₂
2005	1.76	17.41	33.22	0.68	0.52	3,647.06
2025	0.77	5.28	14.53	0.62	0.38	6,957.70
Difference	-0.99	-12.13	-18.69	-0.06	-0.14	3,310.65

As indicated in Table V-2-8, implementation of the proposed general plan would result in net decreases in ROG, NO_x, CO, PM10 and PM2.5 emissions, while CO₂ emissions would increase. The differences in emissions between existing and 2025 project conditions represent emissions generated directly as a result of implementation of the proposed project. Vehicular emission rates are anticipated to lessen in future years due to continuing improvements in engine technology and the phasing out of older, higher-emitting vehicles. These decreases in emission rates is sufficient to offset the increases in VMT seen between existing and 2025 project conditions, resulting in the decreased ROG, NO_x, CO, PM10, and PM2.5 emissions observed in Table V-2-8. Because ROG and NO_x emissions are below the SJVAPCD thresholds of 10 tons per year, this impact is considered less than significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution

(Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project which has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

The SJVAB is an air quality non-attainment area. Any contribution to air pollution in a non-attainment area is considered a significant cumulative air quality impact.

Traffic from development in the City of Modesto would contribute, with traffic from new development in the County and region, toward a cumulative increase in roadside air pollutant levels on major roads and highways throughout the County. Within the City itself, the traffic analysis and corresponding traffic air pollutant analysis takes into account cumulative traffic volumes and is inherently cumulative in nature: The traffic study data includes cumulative traffic volumes which were utilized as an input to the air quality modeling analysis.

Due to the size of Modesto and the future growth projected under its General Plan, it will make a considerable contribution to this cumulative effect.

6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis

None.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

As described above, with the implementation of the City of Modesto policies AQ-1 through AQ-56, the impact will be less than significant.

2. Measures Which Mitigate Cumulative Impacts

Activities within the City of Modesto are subject to regulation by the SJVAPCD. These regulations are to improve regional air quality over time so that the basin will reach air quality attainment. However, in the shorter term, these measures do not avoid the cumulative effect. The City of

Modesto policies, and the new mitigation measures identified above will help to reduce impacts, but not to a less-than-significant level. This impact is considered significant and unavoidable.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

None of the alternatives would substantially reduce or avoid the air quality impacts of the project.

D. MONITORING MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in Public Resources Code Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on air as long as the following circumstances do not occur:

1. Any changes to planned traffic patterns.
2. Any new information which adversely alters the attainment status of the Air Basin.
3. Any new emission factors and background concentrations used in the calculation of air pollutant emissions.
4. Any new or changed rules and regulations.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by Public Resources Code Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred:

1. Any changes to planned traffic patterns.
2. Any new information which substantially alters the attainment status of the Air Basin.
3. Any new emission factors and background concentrations used in the calculation of air pollutant emissions.

4. Any new or changed rules and regulations.

Any changes to the above should be incorporated into this Master EIR.

Section 3

Generation of Noise

This chapter discusses the existing ambient noise conditions in the City of Modesto (City) and evaluates the potential noise impacts of the *City of Modesto Urban Area General Plan* (UAGP) on the City's noise environment. Where significant impacts are identified, this section provides mitigation measures to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. The environmental setting described herein provides the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The direct impact study area is the Modesto area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Analysis will utilize growth and development projections contained in the UAGP. The cumulative impact study area is the Modesto UAGP area.

3. Terminology

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (L_{xx}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). Below are brief definitions of these measurements and other terminology used in this evaluation.

- **Sound.** A vibratory disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Ambient Noise.** The composite of noise from all sources near and far in a given environment exclusive of particular noise sources to be measured.

- **Decibel (dB).** A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels, which approximates the frequency response of the human ear.
- **Equivalent Sound Level (L_{eq}).** The average of sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.
- **Exceedance Sound Level (L_{xx}).** The sound level exceeded xx percent of the time during a sound level measurement period. For example, L_{90} is the sound level exceeded 90 percent of the time and L_{10} is the sound level exceeded 10 percent of the time.
- **Maximum and Minimum Sound Levels (L_{max} and L_{min}).** The maximum or minimum sound level measured during a measurement period.
- **Day-Night Level (L_{dn}).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring from 10:00 p.m. to 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period with a 5 dB penalty added to the A-weighted sound levels occurring from 7:00 p.m. to 10:00 p.m., and a 10 dB penalty added to the A-weighted sound levels occurring from 10:00 p.m. to 7:00 a.m.

L_{dn} and CNEL values rarely differ by more than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment. In general, human sound perception is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving sound level.

4. Existing Physical Setting in the Study Area

The major types of noise sources in the City of Modesto are described below.

a. Roadways

Noise sources that contribute significantly to the noise environment in the Modesto urban area include three highways, State Route (SR) 99, SR 132, and SR 108; various arterials; railroads; industrial facilities; and the Modesto City–County Airport. Of the various roadways, highest sound levels occur along SR 99, as a result of its relatively high traffic volume and truck traffic. The California Department of Transportation (Caltrans) has installed sound barriers along two portions of SR 99. In general, roadways in the City are level and at grade with adjacent properties.

In addition to SRs 99, 108, and 132, truck routes in Modesto include all or portions of the following: Standiford/Sylvan Avenue, Briggsmore Avenue, Kansas Avenue/Needham Avenue, Scenic Drive, Carpenter Road, Paradise Road, Martin Luther King Drive, Tully

Road, Claus Road, El Vista Avenue/Oakdale Road, and First, Fifth, Sixth, Seventh, Eighth, Ninth, Twelfth, Fourteenth, Seventeenth, B, D, G, H, K, L, and Nineteenth Streets.

Refer to Figure V-3-1 for haul routes within the City of Modesto. These are frequented by commercial trucks.

b. Railroad System

The City of Modesto is a regional distribution center for commercial products, and a considerable portion of the business activity in the area is related to warehousing, transportation, and the processing of foods, wine, and related products. As a result, the city is served by three railroads: Burlington Northern–Santa Fe Railroad, Union Pacific Railroad (also includes the former Southern Pacific Transportation Company tracks), and Modesto and Empire Traction Company.

The Burlington Northern–Santa Fe Railroad, which runs adjacent and parallel to Santa Fe Avenue on the eastern edge of Modesto (in Stanislaus County), has approximately 33 freight operations per day with approximately 54 percent daytime operations (7:00 a.m. to 7:00 p.m.) and 11 percent evening operations (7:00 p.m. to 10:00 p.m.) (Stanislaus County 2005).

The Union Pacific Railroad has approximately 16 freight operations per day with approximately 54 percent daytime operations (7:00 a.m. to 7:00 p.m.), 13 percent evening operations (7:00 p.m. to 10:00 p.m.), and 33 percent nighttime operations (10:00 p.m. to 7:00 a.m.) (Stanislaus County 2005).

The Modesto and Empire Traction Company is a short-line railroad situated in a 2000-acre industrial park known as the Beard Industrial District in Modesto. The main line is 5 miles long, with an additional 28 miles of track within the Beard Industrial District. Train speed is limited to a maximum of 20 miles per hour (mph), with an average speed of 1 mph. Train operations typically occur 24 hours per day, from 11 p.m. on Sunday through 8 a.m. on Saturday, with occasional train movements over the weekend. Operations are split into three shifts, with one crew working the 7 a.m. to 3 p.m. shift, two crews working the 3 p.m. to 11 p.m. shift, and two crews working the 11 p.m. to 7 a.m. shift. Train trips per day vary greatly, with lighter operations occurring during the daytime 7 a.m. to 3 p.m. shift (Stanislaus County 2005).

c. Airport

The Modesto City–County Airport is located in the southeastern portion of the city. Residential areas are adjacent to the airport to the west and northwest. The airport serves general aviation pilots (light and ultralight planes), as well as scheduled daily connector service to the San Francisco and Los Angeles International Airports. Over the first six months of 2007 an average of 7,739 passengers used these connector flights (City of Modesto 2007b). The airport had an annual total of 84,185 operations in 2007 and is tentatively forecast to have 98,850 annual operations in 2015 (Coffman Associates 2007). The draft *Modesto City-County Airport Part 150 Study* prepared by Coffman Associates for the City of Modesto forecasts the long-term operations to reach approximately 141,180 sometime after

2015. The draft study estimates that 230 dwelling units are currently within the 60–65 CNEL noise contour of the airport.

It should be noted that these projections will be further updated, as the Airport's *Master Plan* is in the process of being updated and the *Federal Aviation Regulations (FAR) Part 150, Airport Noise Compatibility Program* is still in draft form. Updated projections of future Airport operations will be contained within the Airport's *Updated Master Plan* and *FAR Part 150*.

d. Industry

Another potential sound source is industrial plant facilities. Sound measurements were taken at the former Proctor and Gamble facility (now the G-3 facility) and E & J Gallo Winery in 1992 by Recon Environmental Corp. and presented in the 1995 Final Master Environmental Impact Report (EIR) for the UAGP. The results from these sound measurements are presented in Table V-3-1. The E & J Gallo Winery operates 24 hours per day, seven days per week. Noises associated with the winery are produced by trucking/traffic operations, outdoor generators and other mechanical equipment, and bulk handling (e.g., forklifts) equipment (Byrd pers. comm.).

In 1992, the noise levels measured at the Proctor & Gamble facility were largely determined by facility truck traffic entering and exiting the facility along a driveway that was adjacent to an orchard. This orchard has since been removed. The noise levels measured at the E.&J. Gallo Winery were largely determined by vehicle traffic on Santa Rosa Avenue.

e. Miscellaneous

An additional source of audible sound in residential neighborhoods is high school football games. For example, games are held at the Thomas Downey, Peter Johansen, Central Catholic, and Modesto Christian High Schools, as well as at Modesto Junior College (Beuving and Mendieta pers. comms.). Varsity games are primarily held on Friday nights, with other games held on Wednesdays and Thursdays. Such noise sources will increase as new high schools open (Enochs High School opened in 2006; Gregori High School will open in 2008 or 2009; both are in the northeastern quadrant of the City), assuming that those schools will use either the facilities listed above or their own fields. Other noise sources include heliports, helipads, and noise related to hospital transportation services, such as Medi-Flight.

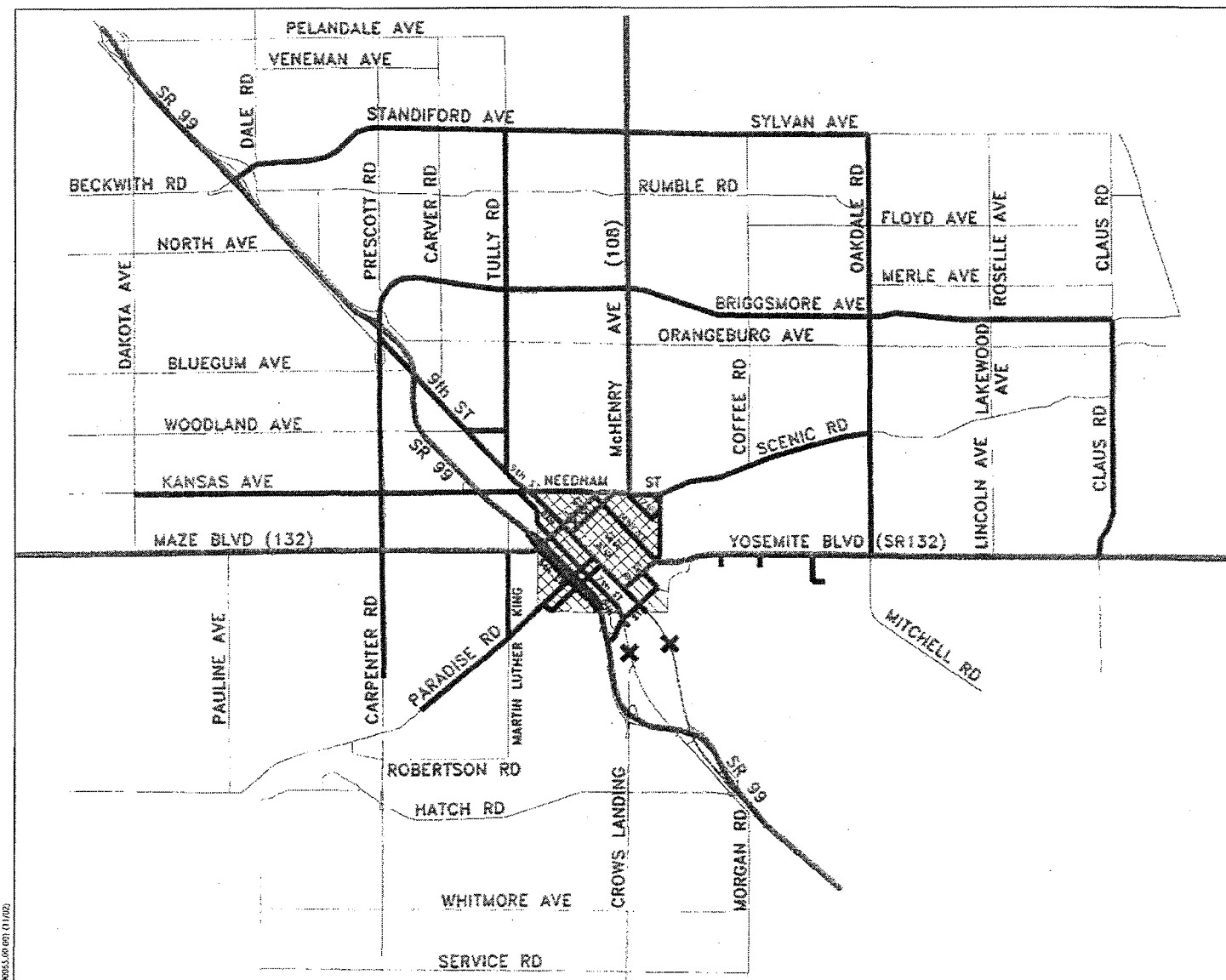





Figure V-3-1
Haul Routes

Legend

-  Designated Truck Route
-  State Highway - Requires State Permit
-  Restricted Access - See Permit for Restrictions



Not to Scale

Source: City of Modesto 2002.


 Jones & Stokes

Table V-3-1. Results of Sound Monitoring

Location	Start Time	Measured Levels (dB)	Adjacent Land Use	Normally Acceptable L _{dn} Level (dB)
1. Along SR 99	6:46 a.m.	73	Church/residential	65
2. Along Yosemite Boulevard	12:15 p.m.	70	Commercial	70
3. Along McHenry Avenue (SR 108)	4:05 p.m.	67	Commercial	70
4. Along West Hatch Road	10:25 a.m.	72	Residential	65
5. Along Sylvan Avenue	5:11 p.m.	72	Residential/office	65
6. Along Briggsmore Avenue	2:59 p.m.	72	Residential/commercial	65
7. Along Oakdale Road	1:51 p.m.	70	Church/residential	65
8. Along Coffee Road	4:10 p.m.	71	Residential	65
9. At Scenic General Hospital	3:56 p.m.	71	Hospital/cemetery	70
10. At Doctor's Medical Center	8:00 a.m.	70	Hospital/residential	65
11. Near Davis High School	9:04 a.m.	70	Residential	65
12. Near the Proctor & Gamble factory	1:00 p.m.	67	Industrial/orchard	75
13. Near Downey High School (football game)	8:10 p.m.	54	Residential	65
14. Near the Gallo Winery	2:27 p.m.	65	Residential/industrial	65
15. Along Rumble Road (Sylvan Park)	4:55 p.m.	64	Park	70
16. Along Ninth Street	11:15 a.m.	74	Commercial	70
17. Along College Avenue	10:13 a.m.	64	School	70
18. Along South Morton Boulevard (Beard Brook Park)	12:30 p.m.	64	Park	70
19. Along La Loma Avenue (Wilson High School)	2:35 p.m.	67	School	70

Source: City of Modesto 1995.

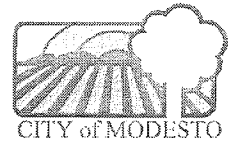
f. Sensitive Receptors

Sensitive receptors are persons and facilities that could be adversely affected by noise. Sensitive receptors in the City of Modesto include residences, hospitals, parks, churches, and schools. Hospitals in Modesto include Doctors Medical Center, Memorial Medical Center, Modesto Rehabilitation Hospital, English Oaks Convalescent Hospital, Stanislaus Surgery Center, and Stanislaus Behavioral Health Center. The larger parks in Modesto include Davis Park, Thousand Oaks Park, and Legion Park. The high schools in Modesto include Fred C. Beyer, Grace Davis, Thomas Downey, Peter Johansen, Modesto, Robert Elliot Alternative, James C. Enochs, Central Catholic, Modesto Christian, and Joseph A. Gregori. Colleges within the City include Modesto Junior College, which has two campuses, Chapman University, Humphreys College, and Andon College.

To further characterize existing noise levels in the project area, noise from traffic traveling on streets in the project area was modeled using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by the City. Table V-3-2 summarizes modeled traffic noise levels under existing conditions for selected roadways in the project area. Roadways evaluated are those where a change would occur under the UAGP update.

Table V-3-2 also presents the distances to various noise contours (60, 65, and 70 L_{dn}) in feet for the streets modeled. For example, on McHenry Avenue, between Needham and Briggsmore Avenues, the sound level is 68 dBA L_{dn} at 100 feet from the centerline of McHenry Avenue. Additionally, the 70 L_{dn} noise contour is located 63 feet from the centerline, the 65 L_{dn} noise contour is 136 feet from the centerline, and the 60 L_{dn} noise contour is 293 feet from the centerline.

Figure V-3-2 illustrates the estimated location of existing and proposed noise level contours. This is an approximation of anticipated noise levels, based on noise modeling. Actual noise levels may vary based on topography, structures, and other factors. Additional noise studies will be required for individual development projects as part of Initial Studies prepared for such projects. The determination of whether to prepare an individual noise study will be made based on the noise compatibility standards illustrated on Table V-3-3.



GENERAL PLAN PROGRAM

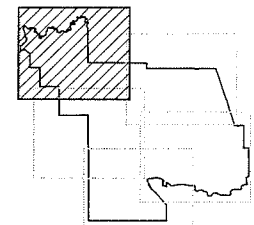
Figure V-3-2
Sheet 1 of 10

NOISE CONTOURS - EXISTING

LEGEND

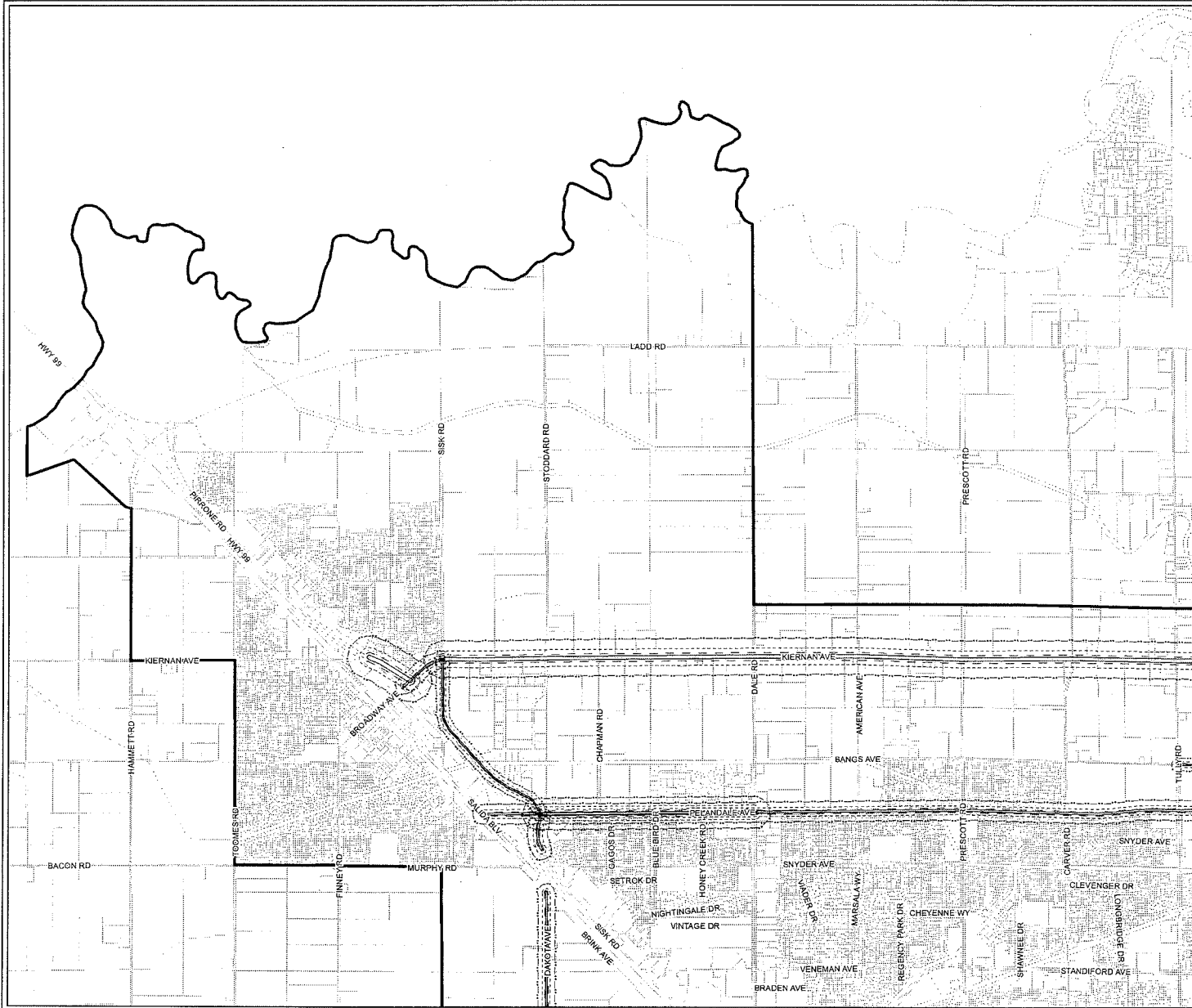
- 60 Ldn
- - - 65 Ldn
- - - 70 Ldn
- 75 Ldn
- Project Area Boundary

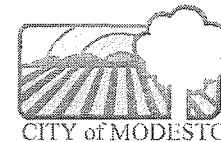
Data Source: Fehr and Peers 2007
Basemap: City of Modesto 2007



2,000 1,000 0 2,000
Feet

1:30,000





CITY of MODESTO GENERAL PLAN PROGRAM

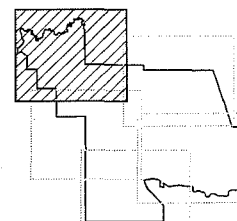
Figure V-3-2
Sheet 2 of 10

NOISE CONTOURS - PROPOSED

LEGEND

- 60 Ldn
- 65 Ldn
- 70 Ldn
- 75 Ldn
- Project Area Boundary

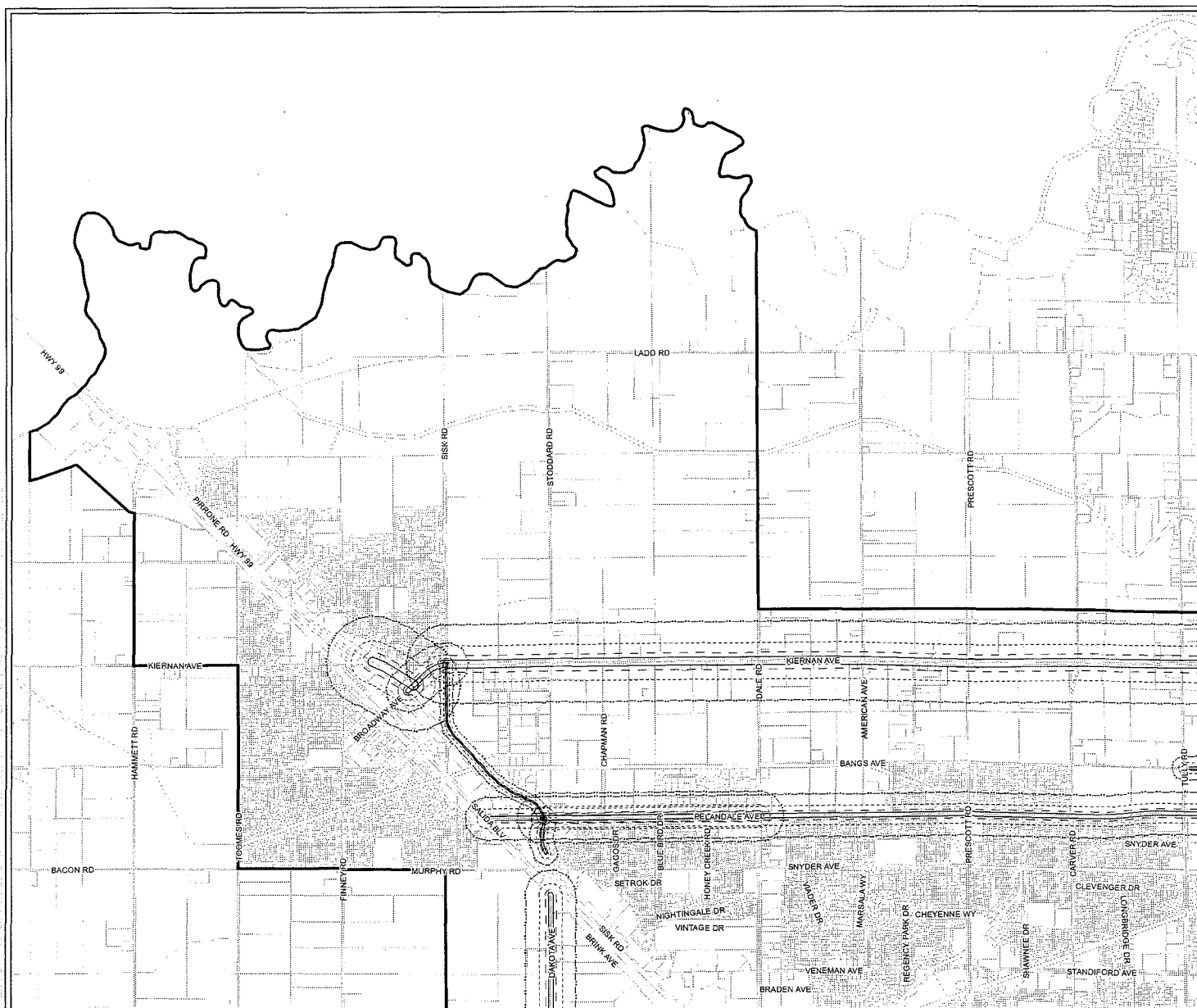
Data Source: Fehr and Peers 2007
Basemap: City of Modesto 2007

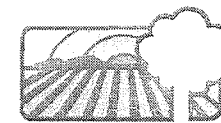
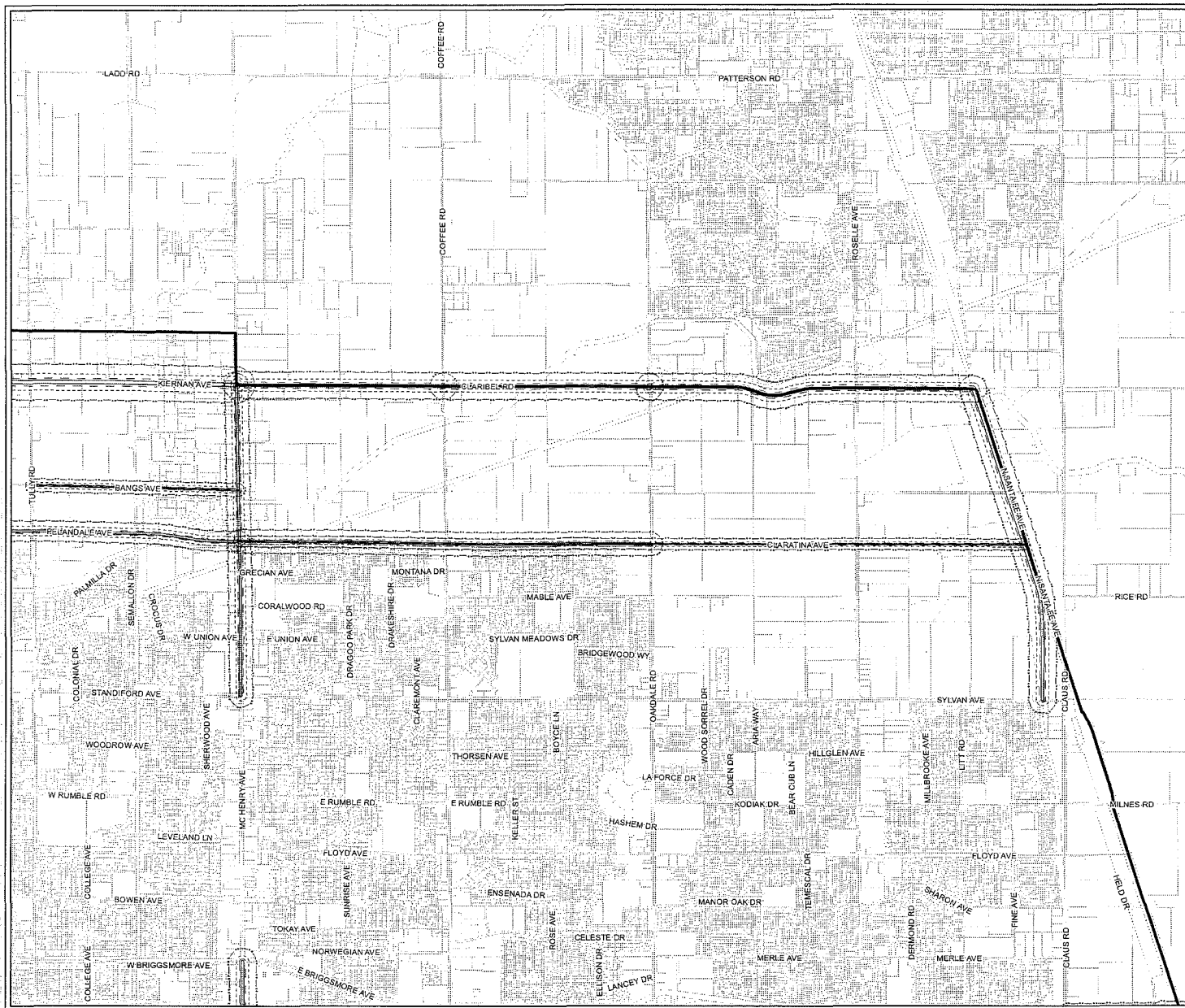


2,000 1,000 0 2,000
Feet



1:30,000





CITY of MODESTO GENERAL PLAN PROGRAM

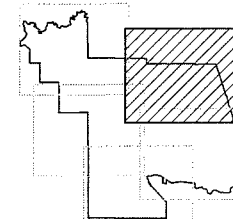
Figure V-3-2
Sheet 3 of 10

NOISE CONTOURS - EXISTING

LEGEND

- 60 Ldn
- - - 65 Ldn
- - - 70 Ldn
- 75 Ldn
- Project Area Boundary

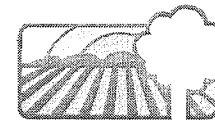
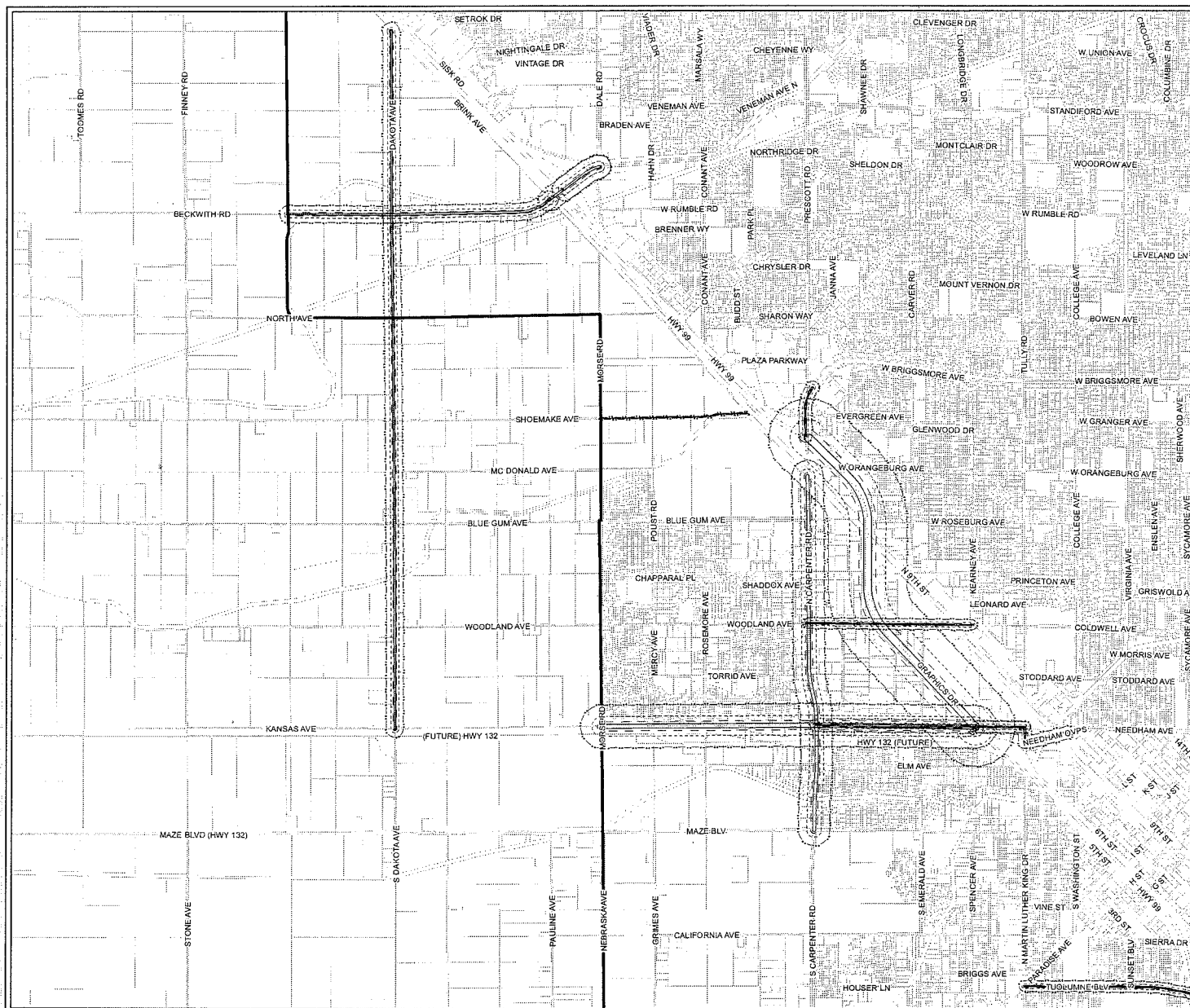
Data Source: Fehr and Peens 2007
Base map: City of Modesto 2007



2,000 1,000 0 2,000
Feet

1:30,000



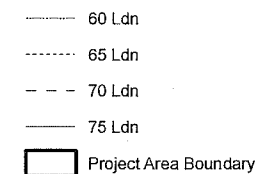


CITY of MODESTO
GENERAL PLAN PROGRAM

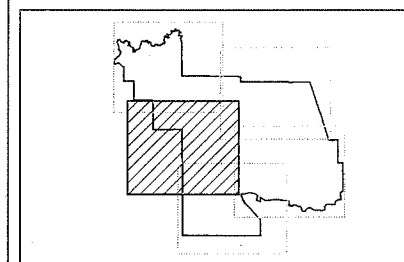
Figure V-3-2
Sheet 5 of 10

NOISE CONTOURS - EXISTING

LEGEND



Data Source: Fehr and Peers 2007
Basemap: City of Modesto 2007



Age Group	Number of respondents
18-24	~1,800
25-34	~2,000
35-44	~1,800
45-54	~1,500
55-64	~1,200
65-74	~1,000
75-84	~800
85+	~600

1:30,000





CITY of MODESTO GENERAL PLAN PROGRAM

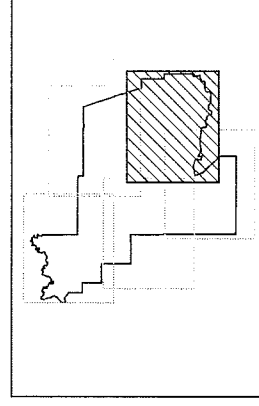
Figure V-3-2
Sheet 7 of 10

NOISE CONTOURS - EXISTING

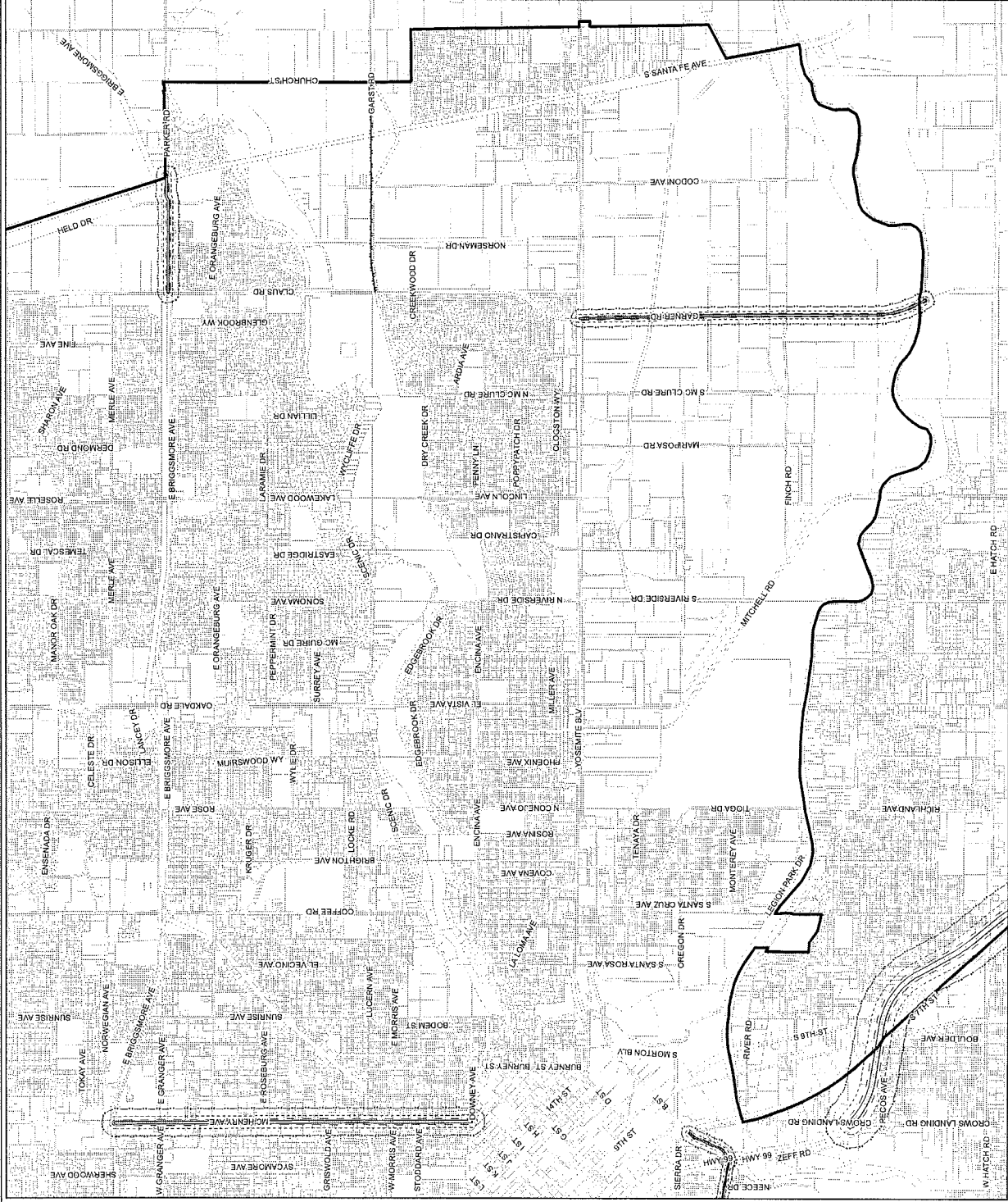
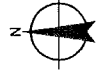
LEGEND

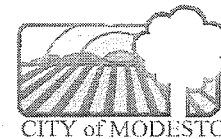
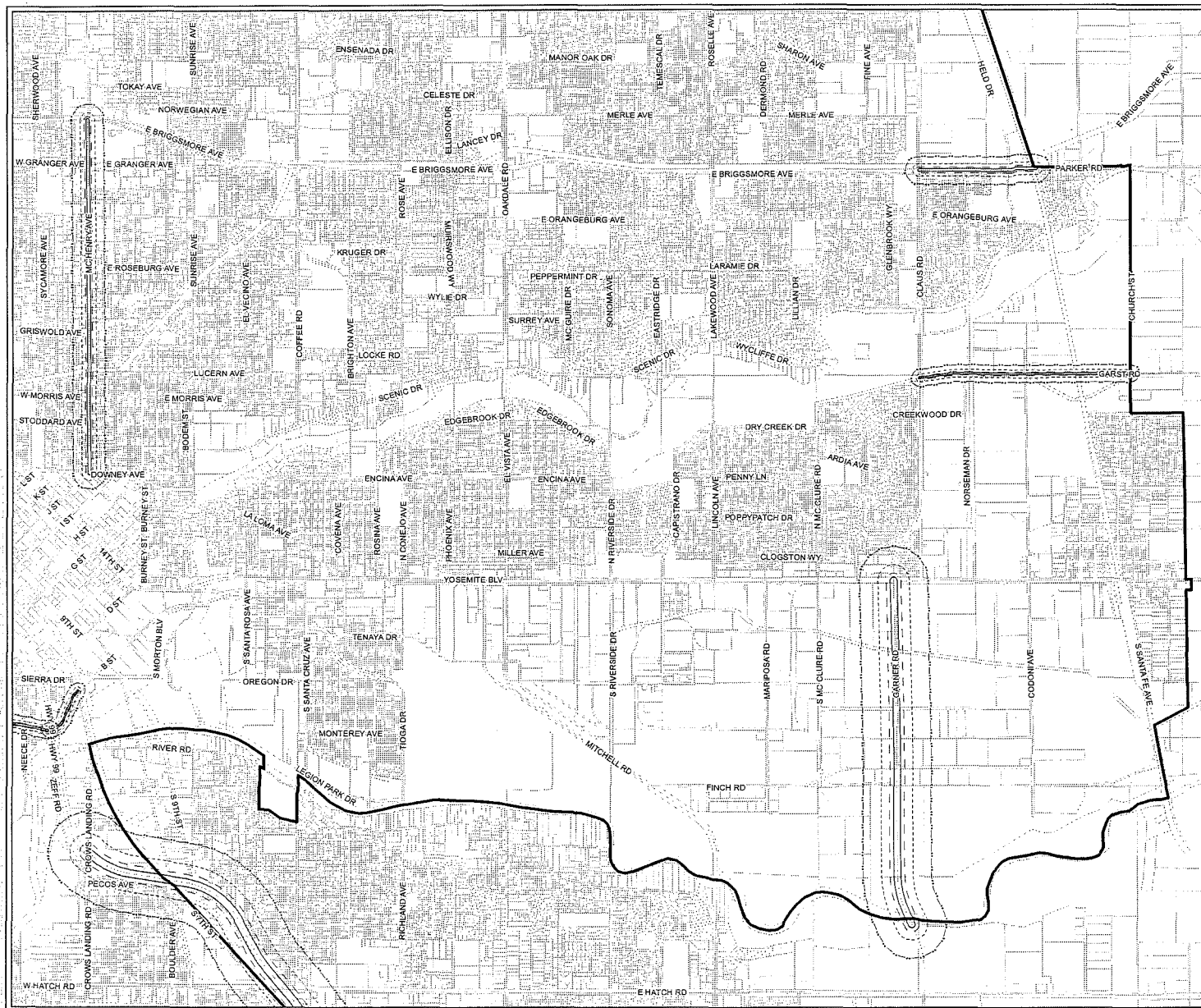
- 60 Ldn
- 65 Ldn
- 70 Ldn
- 75 Ldn
- Project Area Boundary

Data Source: Fair and Plann 2007
Date: May 2007



1:30,000





CITY of MODESTO GENERAL PLAN PROGRAM

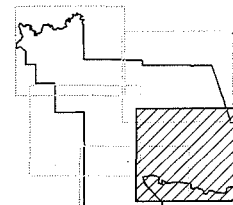
Figure V-3-2
Sheet 8 of 10

NOISE CONTOURS - PROPOSED

LEGEND

- 60 Ldn
- 65 Ldn
- 70 Ldn
- 75 Ldn
- Project Area Boundary

Data Source: Fehr and Peers 2007
Basemap: City of Modesto 2007



2,000 1,000 0 2,000
Feet

1:30,000





NOISE CONTOURS - EXISTING

60 Ldn
65 Ldn
70 Ldn
75 Ldn

Project Area Boundary



1:30,000

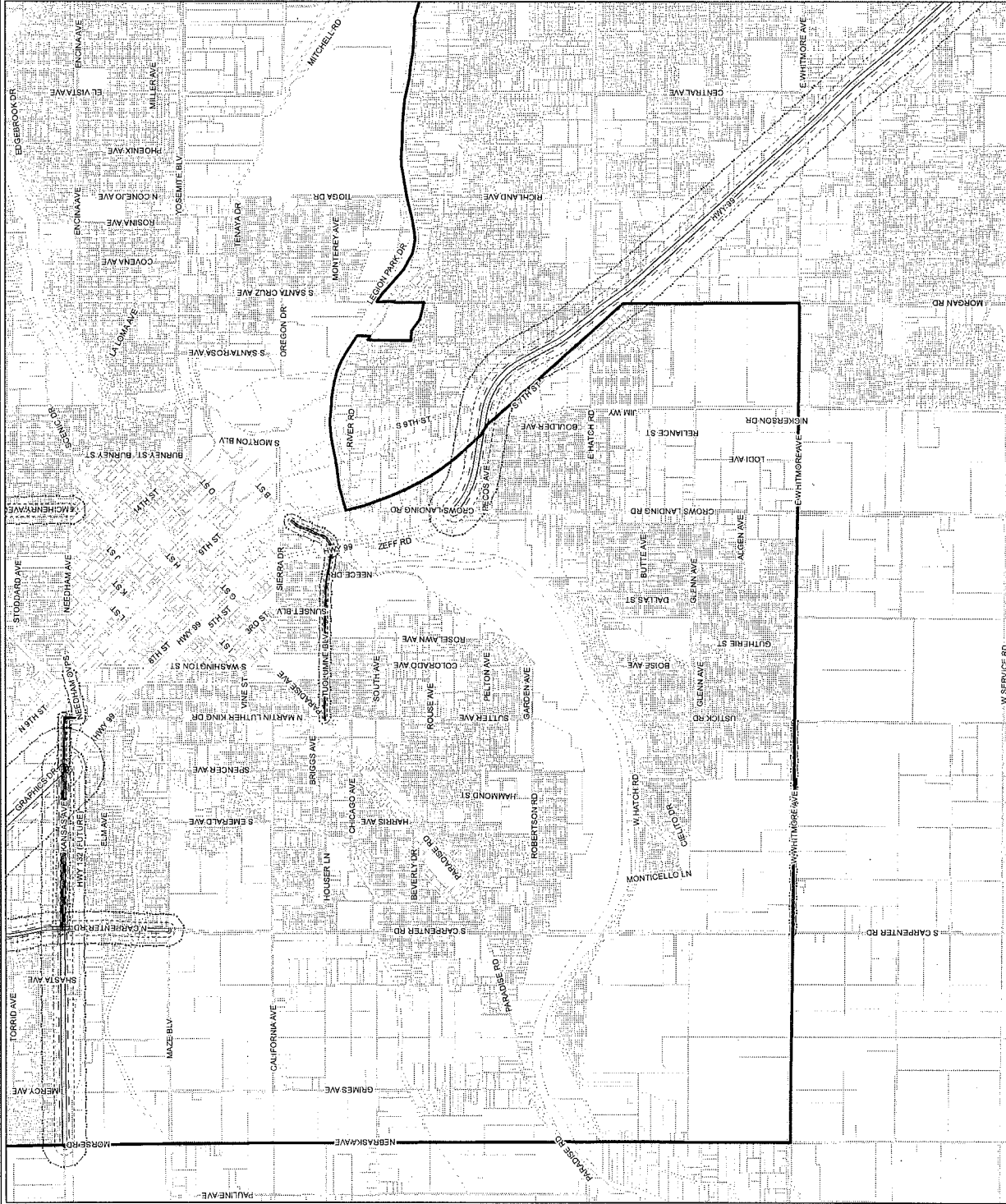




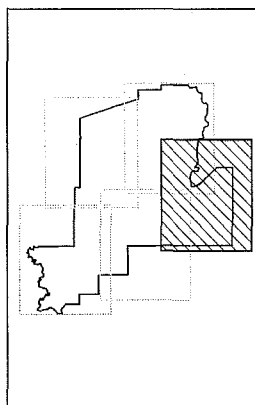
Figure V-3-2
Sheet 10 of 10

NOISE CONTOURS - PROPOSED

LEGEND

- 60 Ldn
65 Ldn
70 Ldn
75 Ldn
Project A

Data Source: Fehr and Peers 2007
 Basemap: City of Modesto 2007



1:30,000

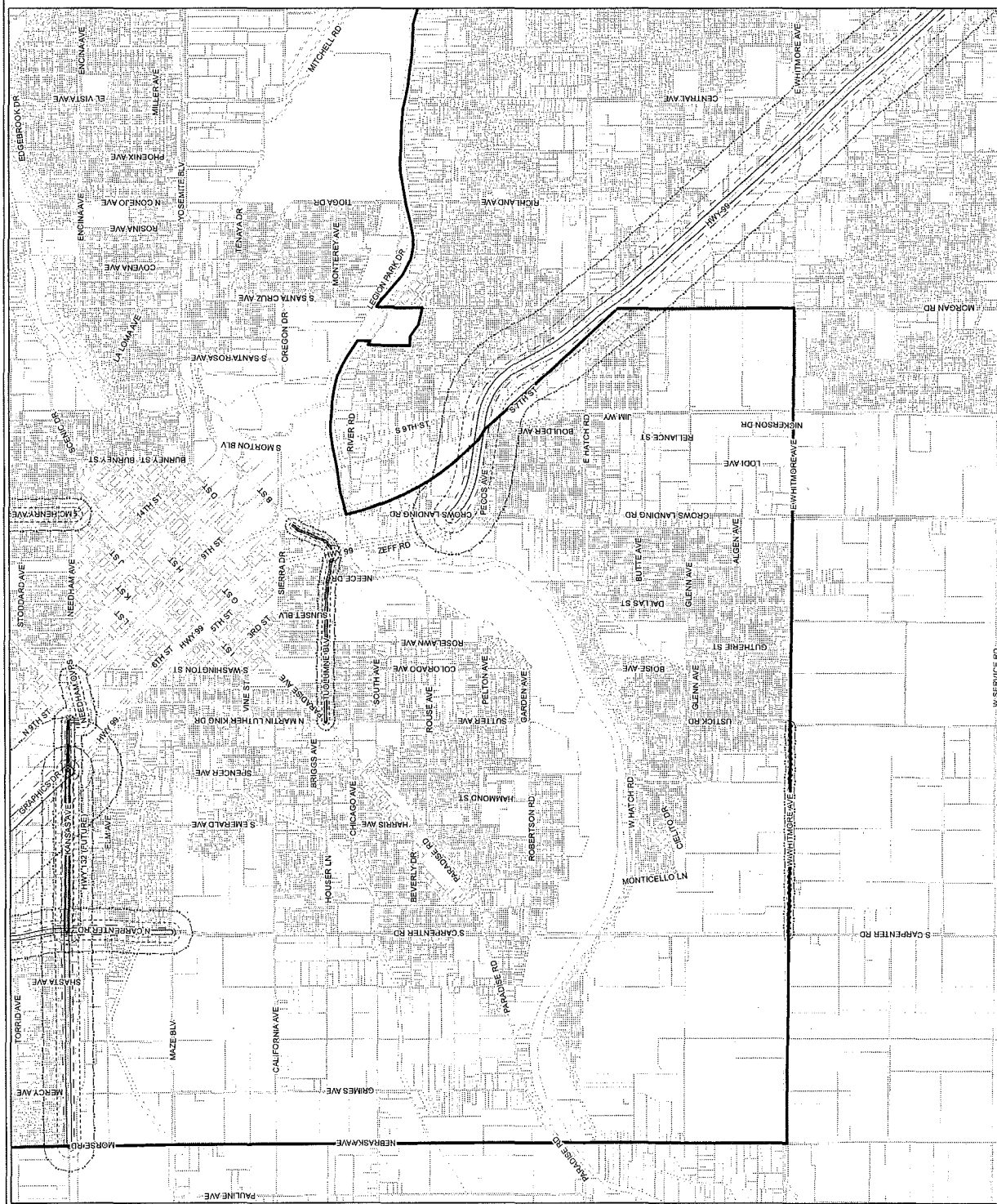


Table V-3-2. Summary of Noise Modeling for Existing Conditions

	Roadway	From:	To:	Sound Level (dB) at 100 feet from Centerline (L _{dn})	Distance to Contour (Feet)			
					75 L _{dn}	70 L _{dn}	65 L _{dn}	60 L _{dn}
1.	Kiernan Avenue	SR 99 northbound ramp	Sisk Road	65	NA ¹	NA ¹	NA ¹	NA ¹
2.	McHenry Avenue	Standiford Avenue	General Plan boundary (¼ mile north of Kiernan Avenue)	67	22	46	100	215
3.	McHenry Avenue	Needham Avenue	Briggsmore Avenue	68	29	63	136	293
4.	Pelandale Avenue	SR 99	Dale Road	69	34	74	158	341
5.	Beckwith Road	General Plan boundary	Future Brink Road	65	40	86	185	398
6.	Beckwith/Standiford Avenue	Future Brink Road	Dale Road	67	22	46	100	215
7.	Carpenter Road	SR 99	Maze Boulevard	69	40	86	185	398
8.	Briggsmore Avenue	SR 99	Prescott Road	63	16	34	74	158
9.	Shoemake Avenue	Future Morse Road	Brink Road	51	3	5	12	25
10.	Shoemake Road	SR 99	Briggsmore Avenue	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
11.	Kansas Avenue	Carpenter Road	9 th Street	63	16	34	74	158
12.	SR 132	West of Dakota Avenue		NA	NA	NA	NA	NA
13.	Claus Road	North of Claribel Road		NA	NA	NA	NA	NA
14.	Claus Road	Claribel Road	Sylvan Avenue	68	34	74	158	341
15.	Claus Road	Sylvan Avenue	Floyd Avenue	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
16.	Claus Road	Floyd Avenue	Briggsmore Avenue	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
17.	Claus Road	Briggsmore Avenue	Scenic Drive	70	46	100	215	464
18.	Sisk Road	Pelandale Avenue	Kiernan Avenue	63	16	34	74	158
19.	SR 99	Briggsmore Avenue	Kansas Avenue	75	100	215	464	1,000
20.	SR 99	Crows Landing Road	Stanislaus/Merced County Line	72	63	136	293	631
21.	SR 99	Northbound on-ramp at the Kiernan Avenue interchange		71	54	117	251	541
22.	Bangs Avenue	Tully Road	McHenry Avenue	63	16	34	74	158
23.	Pelandale Avenue	McHenry Avenue	Oakdale Road	67	29	63	136	293
24.	Kansas Avenue	West of SR 99		71	54	117	251	541

Roadway	From:	To:	Sound Level (dB) at 100 feet from Centerline (L _{dn})	Distance to Contour (Feet)			
				75 L _{dn}	70 L _{dn}	65 L _{dn}	60 L _{dn}
25. Kansas Avenue	East of SR 99		62	14	29	63	136
26. Tuolumne Boulevard	West of SR 99		62	14	29	63	136
27. Tuolumne Boulevard	East of SR 99		64	18	40	86	185
28. Sisk Road (southbound)	Pelandale Avenue	Save Mart Shopping Center southern driveway	66	25	54	117	251
29. Standiford Avenue	SR 99 (northbound ramp)	Dale Road	67	29	63	136	293
30. Woodland/Coldwell Avenue	Carpenter Road	Kearney Avenue	62	14	29	63	136
31. Garst Road	Claus Road	Church Street	44	1	2	4	9
32. Garner Road	Yosemite Boulevard	Hatch Road	65	22	46	100	215
33. Pelandale Avenue	West of McHenry Avenue		66	25	54	117	251
34. Pelandale Avenue	East of McHenry Avenue		62	14	29	63	136
35. Kiernan Avenue/ Claribel Road	West of McHenry Avenue		70	46	100	215	464
36. Kiernan Avenue/ Claribel Road	McHenry Avenue	Coffee Road	68	34	74	158	341
37. Claribel Road	Coffee Road	Oakdale Road	68	34	74	158	341
38. Claribel Road	East of Oakdale Road		68	34	74	158	341
39. Parker Road	Claus Road	Atchison-Topeka and Santa Fe Railroad	66	25	54	117	251
40. Dakota Road	SR 99	New alignment of SR 132	65	22	46	100	215
41. Whitmore Avenue	Carpenter Road	Ustick Road	58	7	16	34	74

Note: Where barriers are located between the roadway and adjacent residences, the predicted sound level would be approximately 3 to 5 dB less, and the distance to the contour would be approximately half the distance indicated.

¹ Traffic data is not available for all segments. NA indicates that traffic data is lacking.

² Noise contour does not extend beyond roadway.

5. Existing Regulatory Setting in the Study Area

A discrete reference number is assigned to each policy listed to facilitate, where appropriate, their incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., N = Noise).

a. Federal Regulations

Under Housing and Urban Development (HUD) regulations, an initial determination must be made for noise impacts for each request for funding to ascertain that the project does not involve development of noise sensitive uses, or that the ambient noise level is 65 L_{dn} or less, based upon the HUD Noise Assessment Guidelines (NAG) for calculating noise levels. These standards apply only to HUD-funded projects.

The Federal Aviation Administration (FAA) administers the airport noise compatibility programs established under the Aviation Safety and Noise Abatement Act of 1979 (14 Code of Federal Regulations [CFR], Part 150). The Part 150 noise study is a voluntary planning process that results in two documents that are intended to mitigate or eliminate current and future airport noise impacts: Noise Exposure Maps and a Noise Compatibility Program. The Noise Exposure Maps illustrate the noise levels expected to result from airport operations as contours laid over a map of the surrounding area. The Noise Compatibility Program includes strategies by which aircraft operations can be tuned to reduce the impacts of airport noise.

The FAA adopted land use compatibility guidelines as part of its 14 CFR Part 150 regulations. These guidelines generally set 65 L_{dn} as the threshold in excess of which residential, school, church, auditorium, and outdoor arena and amphitheater development should incorporate noise reduction components. Commercial, government services, and manufacturing land uses have a threshold of 70 L_{dn} .

b. State Policies





Section 216 of the California Streets and Highways Code relates to the noise level produced by the traffic on, or by the construction of, a state freeway measured in the classrooms, libraries, multipurpose rooms, and spaces used for pupil personnel services of a public or private elementary or secondary school. The code states that if the interior noise level produced by freeway traffic, or the construction of a freeway, exceeds 52 dBA L_{eq} , the department shall undertake a noise abatement program in any such classroom, library, multipurpose room, or space used for pupil personnel services to reduce the freeway traffic noise level therein to 52 dBA L_{eq} or less, by measures including, but not limited to, installing acoustical materials, eliminating windows, installing air conditioning, and constructing sound baffle structures.

The California Code of Regulations (CCR) (Title 24 Noise Insulation Standards) contains requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings to limit the extent of noise transmitted into habitable spaces. These requirements are known collectively as the California Noise Insulation Standards and set forth an interior standard of 45 dB (CNEL or L_{dn}). Where exterior noise levels exceed 60 dB, CNEL or L_{dn} , an acoustical analysis is required to show that the proposed design will limit exterior noise to the prescribed allowable interior level. These standards are typically enforced by local agencies through the building permit application process.

California cities and counties are required to adopt a noise element as part of their general plans (Government Code Section 65302). The purpose of the noise element is to establish a

land use pattern that minimizes the exposure of residents of the community to excessive noise when possible. The California General Plan Guidelines published by the Governor's Office of Planning and Research (OPR) define land use compatibility criteria for noise exposure. These criteria, which are shown in Table V-3-3 below, are the basis for most compatibility criteria used by cities and counties.

Table V-3-3. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - L_{dn} or CNEL (dB)						
	50	55	60	65	70	75	80
Residential—Low-Density Single-Family, Duplex, Mobile Home							
Residential—Multi-Family							
Transient Lodging—Motel, Hotel							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditorium, Concert Hall, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							
 Normally Acceptable:	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
 Conditionally Acceptable:	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.						
 Normally Unacceptable:	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.						
 Clearly Unacceptable:	New construction or development generally should not be undertaken.						
Source: City of Modesto.							

c. Stanislaus County Policies

The Stanislaus County General Plan Noise Element goals, policies, and implementation measures limit the unincorporated community's exposure to excessive noise, and the Noise Element was comprehensively revised in 2006 in conjunction with the update of the County Circulation Element. The County has adopted a modified version of the OPR compatibility criteria (Table V-3-4).

Table V-3-4. County of Stanislaus Noise Element Standards

Maximum Allowable Noise Exposure from Stationary Noise Sources ¹		
	Daytime dB (7:00 a.m.–10:00 p.m.)	Nighttime dB (10:00 p.m.–7:00 a.m.)
Hourly L_{eq}	55	45
Maximum Level	75	65

¹ As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

Source: Stanislaus County 2006.

The County's noise standards affect lands within the City limits that adjoin the County. Otherwise, within the City, City standards apply exclusively. The County does not have a noise ordinance.

d. City of Modesto Policies

The City uses the state's Land Use Compatibility Guidelines, summarized above in Table V-3-3, for establishing guidelines for noise within the City. For areas zoned for single-family residential uses, the City has established 65 dBA L_{dn} as the maximum acceptable noise level. For areas zoned for other uses, the standards from Table V-3-3 shall apply.

N-1: The City has also established a noise ordinance to control noise within the City. The City's noise ordinance (Modesto Municipal Code Section 4-9.101) prohibits the "loud and raucous discharge into the open air of the steam of any steam equipment or exhaust from any stationary internal-combustion engine."

N-2: Additionally, the noise ordinance prohibits the loud and raucous operation or use of any of the following before 7:00 a.m. or after 9:00 p.m. daily (except Saturday and Sunday and state or federal holidays, when the prohibited time shall be before 9:00 a.m. and after 9:00 p.m.):

A hammer, or any other device or implement used to pound or strike an object.

1. An impact wrench, or other tool or equipment powered by compressed air.
2. A hand-powered saw.
3. Any tool or piece of equipment powered by an internal-combustion engine such as, but not limited to, chain saw, backpack blower, and lawn mower.
4. Any electrically powered (whether by alternating current electricity or by direct current electricity) tool or piece of equipment used for cutting, drilling, or shaping

wood, plastic, metal, or other materials or objects, such as, but not limited to, a saw, drill, lathe, or router.

5. Any of the following: heavy equipment (such as but not limited to bulldozer, steam shovel, road grader, back hoe), ground drilling and boring equipment (such as but not limited to derrick or dredge), hydraulic crane and boom equipment, portable power generator or pump, pavement equipment (such as but not limited to pneumatic hammer, pavement breaker, tamper, compacting equipment), pile-driving equipment, vibrating roller, sand blaster, gunite machine, trencher, concrete truck, and hot kettle pump.
6. Any construction, demolition, excavation, erection, alteration, or repair activity. In the case of urgent necessity and in the interest of public health and safety, the Chief Building Official may issue a permit for exemption from these. Such period shall not exceed three (3) working days in length while the emergency continues but may be renewed for successive periods of three (3) days or less while the emergency continues. The Chief Building Official may limit such permit as to time of use and/or permitted action, depending upon the nature of the emergency and the type of action requested.

In addition, the City has adopted the following policies as part of its UAGP.

All development projects located within the Baseline Developed Area (and Redevelopment Area) are required to incorporate the policies listed below into the project.

- N-3:** The City of Modesto shall require construction activities to comply with the City's noise ordinance (Title 4, Chapter 9), and noise-reducing construction practices to be implemented as conditions of approval for development projects where substantial construction-related noise impacts would be likely to occur (e.g., where construction would include extended periods of pile driving, where construction would occur over an unusually long period, or where noise-sensitive uses like homes and schools would be in the immediate vicinity, etc.). The city should consider potential mitigation measures, including, but not limited to, the following:

Construction equipment and vehicles should be equipped with properly operating mufflers according to the manufacturers' recommendations. Air compressors and pneumatic equipment should be equipped with mufflers, and impact tools should be equipped with shrouds or shields.

Equipment that is quieter than standard equipment should be utilized.

Haul routes that affect the fewest number of people should be selected. (UAGP VII-G.3[a])

- N-4:** During City review of a proposed project consistent with the updated General Plan, the City of Modesto shall use the following guidelines to decide whether to require additional study and/or mitigation. Outdoor activity areas typically defined as common outdoor recreational areas, as discussed below:

Single-family Residential uses: the noise would exceed 65 dBA, L_{dn} at outdoor activity areas. Outdoor activity areas for single-family residential uses are defined as backyards.

Other proposed uses: the noise/land use compatibility guidelines (i.e., those noise levels which are "conditionally acceptable," "normally unacceptable," or "clearly unacceptable") shown in Table VII-2 [of the UAGP]. For multi-family residential uses, the exterior noise level shall be applied at the common outdoor recreation area, such as pools, play areas, or tennis courts. Where such areas are not provided in multi-

family residential uses, the standards shall be applied at individual patios and balconies of the development. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas. (UAGP VII-G.3[b])

- N-5:** For new single-family residential development within the 65 dBA_A L_{dn} contour, new multifamily residential development within the 65 dBA L_{dn} contour (Figure V-3-2), and other land uses located within the “Normally Acceptable” contour distances indicated in Table VII-2 and Figure V-3-2), the City of Modesto shall require developers to demonstrate that the proposed development will incorporate measures to reduce noise impacts to a less-than-significant level, as follows:

Incorporate construction techniques to achieve an interior noise limit of 45 L_{dn} (these potential techniques are represented in CCR Title 24 standards).

Where feasible and consistent with General Plan policy, incorporate setbacks and/or locate less-sensitive uses between a noise source and noise-sensitive uses.

Provide (to the extent feasible and consistent with General Plan policy) berms, barriers, or other techniques to shield noise-sensitive uses. This policy is appropriate for more suburban, less densely populated areas of the City. More urban areas of the City would more likely require policies c. (1) and (2) above. (UGAP VII-G.3[c])

- N-6:** The City of Modesto shall use the most recent noise contour map to implement the requirements of Noise Insulation Standards contained in Title 24 of the California Code of Regulations. (Title 24 applies to multi-family housing, not single-family.) Title 24 also specifies minimum values for the sound insulation afforded by interior partitions separating different dwelling units from each other and from interior common space. (UGAP VII-G.3[d])

- N-7:** For proposed non-residential uses, where noise mitigation is deemed necessary for new developments to meet the exterior noise land use compatibility guidelines (Table VII-2 [of the UAGP]), the City of Modesto shall require developers to demonstrate that the proposed development will incorporate measures to reduce noise impacts to a less-than-significant level, as follows:

Where feasible and consistent with General Plan policy, incorporate setbacks and/or locate less-sensitive uses between a noise source and noise-sensitive uses.

Provide (to the extent feasible and consistent with General Plan policy) berms, barriers, or other techniques to shield noise-sensitive uses from noise sources.

Incorporate construction techniques to achieve specified interior noise limits. One source that can be used for such specifications is the *Noise Control Manual for Residential Buildings* (Builder’s Guide) by David A. Harris (1997). (UAGP VII-G.3[e])

- N-8:** With road extension, widening and upgrade projects, the City of Modesto shall implement, as feasible, techniques to minimize noise impacts on adjacent uses. Potentially available techniques may include:

- Widened right-of-way;
- Depressed roadway alignments;
- Earthen berms or earthen/wall combination;
- Walls;
- Acoustical retrofitting to affected parties. (UAGP VII-G.3[f])

- N-9:** In recognition of the conservative methodology used to develop the noise contours shown on Figure V-3-2, builders, developers (for private development projects) and the

City (for Capital projects) shall be allowed to demonstrate that detailed noise studies and/or mitigation are not necessary because future noise levels would be substantially less than depicted on Figure V-3-2 due to, for example, natural shielding (e.g., from intervening topographical features or man-made structures) of a site or inapplicability of assumptions (shown on [Table V-3-5] of the Master Environmental Impact Report) used to develop the noise contours. (UAGP VII-G.3[g])

- N-10:** The City of Modesto shall limit trucking to specific routes, times and speeds that minimize adverse effects to sensitive land uses such as schools and residential areas. (UAGP VII-G.3[h])
- N-11:** Airport and aircraft noise analysis will be conducted in accordance with the Modesto City/County Airport's Master Plan mitigation measure in the approved plan and Federal Aviation Regulation (FAR) Part 150. Mitigation will be required for new construction as necessary to meet the noise compatibility standards of the UAGP. As airport operations increase, mitigation will be provided to existing residential and other sensitive uses, either through operations or direct property improvements, in order to meet Title 14 Code of Federal Regulations Part 150 land use compatibility guidelines. (UAGP VII-G.3[i])
- N-12:** Proponents of new heliports where projected noise impacts from helicopter operations would exceed 65 L_{dn} at the nearest residential uses should utilize the latest FAA helicopter modeling tools and noise assessment criteria. (UAGP VII-G.3[j])

All development projects located within the Planned Urbanizing Area are required to incorporate the policies listed below into the project.

- N-13:** The Focused EIR for each Comprehensive Planning District shall include a Noise Analysis prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. Noise mitigation measures shall be used as a guide for establishing a pattern of land uses that minimizes the exposure of present and future community residents to excessive noise. The noise contours developed by the Noise Analysis shall be used to determine the land use pattern appropriate within the Specific Plan. (For example, noise from a freeway or expressway might indicate the need for sound barriers, or for non-residential uses adjacent to the noise source.) (UAGP VII-G.4[a])
- N-14:** All Noise Mitigation Policies adopted for the Baseline Developed Area apply equally in the Planned Urbanizing Area. (UAGP VII-G.4[b])

Table V-3-5. Noise Contour Development Assumptions

Traffic Assumptions:						
Facility	# of Lanes	Speed (mph)	Peak-Hour Volume ¹	Vehicle Mix Percentage		
				Autos	Medium Trucks	Heavy Trucks
Expressway						
Class A	6	55	7,200	94	3	3
Class B	6	50	6,000	94	3	3
Class C	6	45	4,800	94	3	3
Arterial						
Principal	6	45	4,800	97	2	1
Minor	4	45	3,200	98	2	0
Noise Contour Distances:						
Facility	Distance to L _{dn} Contour from Centerline (feet) ²					
	75 L _{dn}	70 L _{dn}	65 L _{dn}	60 L _{dn}		
Class A	120	250	550	1,200		
Class B	90	200	430	920		
Class C	70	150	320	690		
Arterial						
Principal	50	120	250	540		
Minor	40	80	170	360		

Note: In order to maintain consistency with the UAGP reference, this table does not follow the nomenclature used for tables elsewhere in this Master EIR.

¹ Peak-Hour volume reflects the noisiest hour of the day, which reflects Level of Service (LOS) C conditions (i.e., approximately 80 percent of lane capacity).

² Estimated using the FHWA Highway Traffic Noise Prediction Model as adjusted to reflect CALVENO reference noise levels. The L_{dn} was assumed to equal the peak-hour noise level. Estimates reflect an attenuation rate of 4.5 dB for each doubling of the reference distance.

6. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the UAGP areas as they annex and develop. The policy reference numbers are listed, and the full text of these policies is found in section A-5 above, *Existing Regulatory Setting in the Study Area*.

a. City of Modesto Policies

The UAGP provides the following policies as described in section A-5 above, related to noise that when incorporated into subsequent projects will avoid or reduce impacts: N-1 through N-14.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

Thresholds of significance for noise impacts have been established for this assessment based on the CEQA Environmental Checklist found in Appendix G of the State CEQA Guidelines. A proposed project would result in a significant noise impact if any of the following were to occur as a result of project implementation:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.
- f. For a project within the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels.

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are available.

3. Threshold of Significance Adopted by the City of Modesto

After consideration of the methodological approaches suggested by the CEQA Guidelines, FHWA, HUD, Title 24 of the CCR, and California Governor's Office of Planning and Research, the City has chosen to adopt the following standard:

Noise impacts are considered significant when the predicted sound level at a site is in excess of 650 L_{dn} for residential land use. For other land uses, the applicable criteria, as recommended by the California Governor's Office of Planning and Research are: 70 L_{dn} for schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and office buildings, business commercial and professional; and 75 L_{dn} for sports arenas, golf courses, riding stables, water recreation, cemeteries, and industrial, manufacturing, utilities, and agriculture.

4. Significant Direct Impacts

CEQA requires the significance of noise impacts to be determined for proposed projects. The process of assessing the significance of noise impacts associated with the proposed project involved establishing thresholds at which significant impacts are considered to occur at noise-sensitive land uses. Next, noise levels associated with project-related activities were predicted and compared to the significance thresholds. Where a noise level would exceed a threshold, the predicted impacts were considered to be significant. Traffic noise modeling was conducted using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic data provided by Fehr & Peers, Caltrans, and the City. Traffic noise modeling was conducted for existing and future with-project conditions.

Predicted traffic noise levels expressed in L_{dn} in the plan area under existing and future conditions with the project are summarized in Table V-3-6. Table V-3-6 indicates that traffic noise levels for future conditions in the plan area have the potential to result in exceedances of the City's Noise Significance Standards, as summarized above in Table V-3-3. Therefore, this impact is considered significant. Implementation of the UAGP policies will reduce construction-related, transportation-related, and industrial/commercial noise impacts, in most instances, to less-than-significant levels.

Table V-3-6. Summary of Noise Modeling for Future Proposed Project Conditions

Roadway	From:	To:	Sound Level (dB) at 100 feet from Centerline (L _{dn})	Distance to Contour (Feet)			
				75 L _{dn}	70 L _{dn}	65 L _{dn}	60 L _{dn}
1. Kiernan Avenue	SR 99 northbound ramp	Sisk Road	71	54	117	251	541
2. McHenry Avenue	Standiford Avenue	General Plan boundary (¼ mile north of Kiernan Avenue)	70	46	100	215	464
3. McHenry Avenue	Needham Avenue	Briggsmore Avenue	69	40	86	185	398
4. Pelandale Avenue	SR 99	Dale Road	72	63	136	293	631
5. Beckwith Road	General Plan boundary	Future Brink Road	72	63	136	293	631
6. Beckwith/Standiford Avenue	Future Brink Road	Dale Road	71	54	117	251	541
7. Carpenter Road	SR 99	Maze Boulevard	71	54	117	251	541
8. Briggsmore Avenue	SR 99	Prescott Road	68	34	74	158	341
9. Shoemake Avenue	Future Morse Road	Brink Road	50	2	5	10	22
10. Shoemake Road	SR 99	Briggsmore Avenue	NA ¹	NA ¹	NA ¹	NA ¹	NA ¹
11. Kansas Avenue	Carpenter Road	9 th Street	68	34	74	158	341
12. SR132	West of Dakota Avenue		NA	NA	NA	NA	NA
13. Claus Road	North of Claribel Road		NA	NA	NA	NA	NA
14. Claus Road	Claribel Road	Sylvan Avenue	76	117	251	541	1,166
15. Claus Road	Sylvan Avenue	Floyd Avenue	NA	NA	NA	NA	NA
16. Claus Road	Floyd Avenue	Briggsmore Avenue	NA	NA	NA	NA	NA
17. Claus Road	Briggsmore Avenue	Scenic Drive	75	100	215	464	1,000
18. Sisk Road	Pelandale Avenue	Kiernan Avenue	63	16	34	74	158
19. SR 99	Briggsmore Avenue	Kansas Avenue	77	136	293	631	1,359
20. SR 99	Crows Landing Road	Stanislaus/Merced County Line	75	100	215	464	1,000
21. SR 99	Northbound on-ramp at the Kiernan Avenue interchange		76	117	251	541	1,166
22. Bangs Avenue	Tully Road	McHenry Avenue	67	29	63	136	293
23. Pelandale Avenue	McHenry Avenue	Oakdale Road	74	86	185	398	858

Roadway	From:	To:	Sound Level (dB) at 100 feet from Centerline (L _{dn})	Distance to Contour (Feet)			
				75 L _{dn}	70 L _{dn}	65 L _{dn}	60 L _{dn}
24. Kansas Avenue	West of SR 99		72	63	136	293	631
25. Kansas Avenue	East of SR 99		63	16	34	74	158
26. Tuolumne Boulevard	West of SR 99		65	22	46	100	215
27. Tuolumne Boulevard	East of SR 99		64	18	40	86	185
28. Sisk Road (southbound)	Pelandale Avenue	Save Mart Shopping Center southern driveway	67	29	63	136	293
29. Standiford Avenue	SR 99 (northbound ramp)	Dale Road	70	46	100	215	464
30. Woodland/Coldwell Avenue	Carpenter Road	Kearney Avenue	66	25	54	117	251
31. Garst Road	Claus Road	Church Street	65	22	46	100	215
32. Garner Road	Yosemite Boulevard	Hatch Road	74	86	185	398	858
33. Pelandale Avenue	West of McHenry Avenue		71	54	117	251	541
34. Pelandale Avenue	East of McHenry Avenue		68	34	74	158	341
35. Kiernan Avenue/ Claribel Road	West of McHenry Avenue		75	100	215	464	1,000
36. Kiernan Avenue/ Claribel Road	McHenry Avenue	Coffee Road	76	117	251	541	1,166
37. Claribel Road	Coffee Road	Oakdale Road	76	117	251	541	1,166
38. Claribel Road	East of Oakdale Road		75	100	215	464	1,000
39. Parker Road	Claus Road	Atchison-Topeka and Santa Fe Railroad	68	34	74	158	341
40. Dakota Road	SR 99	New alignment of SR 132	72	63	136	293	631
41. Whitmore Avenue	Carpenter Road	Ustick Road	61	12	25	54	117

Note: Where barriers are located between the roadway and adjacent residences, the predicted sound level would be approximately 3 to 5 dB less, and the distance to the contour would be approximately half the distance indicated.

¹ Traffic data is not available.

² Noise contour does not extend beyond roadway.

The draft Part 150 study being prepared by Coffman Associates estimates that up to 294 dwelling units may be exposed to aircraft noise up to 65 CNEL by 2015, with no other sensitive uses being exposed to that noise level (Coffman Associates 2007). Based on theoretical increased airport operations beyond 2015, the long-range level of exposure provides an estimate of as many as 468 dwellings and 3 churches being exposed to noise levels up to 65 CNEL, and 8 dwellings potentially being exposed to levels up to 70 CNEL (Coffman Associates 2007). This study also establishes noise levels and noise abatement policies that will be integrated into the airport master plan. At the present time, absent a specific mitigation program for the airport, the future noise levels are considered a significant and unavoidable impact.

Airport and aircraft noise analysis will be conducted in accordance with the Modesto City/County Airport's Master Plan mitigation measures to be enacted in compliance with Federal Aviation Regulation Part 150. Upon implementation of regular air carrier scheduled jet service, a new noise contour will be prepared based on the daily flight frequency and type of aircraft proposed for use. New contours will be prepared for subsequent significant increases in daily scheduled jet service. The City of Modesto will regularly monitor aircraft noise levels within the airport area of influence and publish a report of the findings.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project which has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

Traffic from development in the City of Modesto would contribute with traffic from new development in the County and region toward a cumulative increase in roadside noise levels on major roads and highways throughout the County. Within the City itself, the traffic analysis and corresponding traffic noise analysis take into account cumulative traffic volumes. The traffic study data includes cumulative traffic volumes, which were utilized as an input to the noise modeling analysis.

Noise level projections based on the traffic levels anticipated in the UAGP indicate that noise will exceed the UAGP and noise ordinance standards. This is a significant cumulative effect. The development allowable under the UAGP will make a considerable contribution to that effect. The impact is significant and unavoidable.

6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis

Future airport operations are not sufficiently known to allow full analysis of impacts and the development of specific mitigation measures, compatible with FAA regulations.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The UAGP requires all development projects located within the Baseline Developed Area and Redevelopment Area to incorporate explicit noise mitigation measures to mitigate noise levels. The City's policies are outlined in N-1 through N-14 in section A-5 above. These policies would reduce significant impacts to a less-than-significant level in most instances. However, these policies would not reduce to less than significant all of the noise impacts that would occur due to growth and development in the City to 2025. The effect is significant and unavoidable.

2. Measures Which Mitigate Cumulative Impacts

This impact is considered significant in that individual projects allowed under the UAGP will contribute to the cumulative noise impact within the city. Implementation of the UAGP policies N-1 through N-14 (as described in section A-5 above) will reduce construction-related, transportation-related, and industrial/commercial noise impacts in most instances to less-than-significant levels. However, these policies would not eliminate the contributions of the individual noise impacts that would contribute to the cumulative impact in 2025. The effect is significant and unavoidable.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Alternatives 1 and 2 propose essentially the same land use distribution as the proposed UAGP. Neither of the alternatives would completely avoid noise impacts, particularly future airport noise, but both would offer a reduction of road noise along the roads proposed for expansion under the proposed project. By keeping the roads narrower, in comparison to the project, the future noise contours would be narrower as well.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified have been incorporated into the UAGP and are implemented by that plan. No new mitigation measures are proposed. Therefore, no mitigation monitoring is required in the Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on noise as long as the following circumstances have not changed:

1. The revisions to the street system are those proposed as part of the general plan amendment described in Chapter III of this Master EIR.
2. There is no new information that substantially alters noise contours for the plan area, including new information regarding the airport.
3. There are no changes in the UAGP noise policies or noise ordinance.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section, *Generation of Noise*, is current as long as the following circumstances have not occurred:

1. A substantial alteration of noise contours for the plan area
2. Any changes in the City's Noise Policies, guidelines, laws, or regulations relating to noise exposure or control

Any new information which results in the above should be incorporated into this Master EIR.

Section 4

Effects on Agricultural Lands

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect agricultural lands, including by converting unique and prime farmland. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on agricultural lands is the Modesto planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative impacts, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the general plans of Stanislaus County (County) and the City of Modesto (City), as well as the projections of the state Farmland Mapping and Monitoring Program (FMMP). The study area for cumulative impacts on agricultural lands includes Stanislaus and San Joaquin Counties.

3. Existing Physical Conditions in the Study Areas

a. Overview

Agriculture is a leading industry in Stanislaus County and San Joaquin County; the value of Stanislaus County's agricultural commodities totaled approximately \$1.98 billion in 2005, and San Joaquin County's totaled \$1.74 billion (California Department of Food and Agriculture 2006). The agriculture, forestry, and fishing industries rank second only to the public sector in number of jobs in the San Joaquin Valley, with 181,300 jobs in 2007 (J.K. 2007). In 2005, Stanislaus and San Joaquin Counties ranked as the sixth and seventh most agriculturally productive counties in California, respectively, based on the value of agricultural products sold (California Department of Food and Agriculture 2006). Stanislaus and San Joaquin Counties' flat land, good to excellent soil quality, favorable climate, and

availability of water favor agriculture. In addition, the region possesses low-cost power and a good transportation system.

The same resources that are essential to agriculture are attractive to urban development also. Approximately 2,523 acres of Stanislaus County and 5,833 acres of San Joaquin County farmland and grazing land were converted to urban and built-up uses from 2000 to 2002 (California Department of Conservation 2004).

Modesto (both the present community and its planning area) is located on prime farmland and is surrounded by active agricultural operations. The conditions for agricultural production on lands west and east of Modesto are unique: The soil quality is excellent, water rights are secure, water quality is high, and there are relatively few drainage problems. Such conditions allow the production of orchard and vine crops, including almonds, walnuts, grapes, and peaches, that require well-drained soils and irrigation (Perry pers. comm.).

b. Description of Agricultural Lands within the City of Modesto Urban Area General Plan Study Area

The Natural Resources Conservation Service (NRCS, previously called the Soil Conservation Service) describes these soils as follows (Natural Resources Conservation Service 2007). (Note that the soil associations of Hanford, Dinuba/Hanford, and Modesto/Chualar are associated with prime agricultural lands.)

(1) Chualar Series

These soils are moderately well-drained and moderately coarse-textured. They are smooth and very gently sloping to nearly level. Many areas of these soils are located in the vicinity of Modesto, especially to the north and northwest. They are important for growing a wide variety of orchard, vineyard, field, and forage crops; yields are good to excellent.

(2) Dinuba Series

These soils are imperfectly drained and moderately coarse-textured. They are very gently sloping to nearly level. These soils are located north and northwest of Modesto. They are largely cultivated, primarily for irrigated pasture and grain and vine crops.

(3) Hanford Series

These soils are well-drained and moderately coarse-textured. They have smooth, very gentle slopes. These soils are found along the Stanislaus and Tuolumne Rivers and on broad alluvial fans in the Modesto vicinity. They are important for a wide variety of irrigated orchards and field and truck crops.

(4) Modesto Series

These soils are moderately well-drained, medium, and moderately fine-textured. They occur on nearly level areas where runoff is very slow. These soils are found north and northwest of Modesto. They are used for a wide variety of field crops and for orchards and vineyards.

c. Operational Characteristics of Existing Agricultural Practices

This section describes some of the general operations undertaken in commercial agricultural production as they relate to the natural environment.

(1) Use of Chemicals

Several types of chemicals are used often on agricultural lands to increase yields. The use and type of chemicals depend on such factors as the time of year, the weather, and pest populations. All chemicals used in California have undergone the California Department of Food and Agriculture (CDFA) pesticide registration process, which requires information on toxicology, water solubility, skin contact, and other related information. All pesticides must be applied according to manufacturers' label instructions to ensure safe use. Most chemicals are applied by spraying by hand, tractor, or airplane. Aerial spraying of chemicals onto agricultural land located adjacent to residential development can be considered a health hazard because the chemicals might drift onto nontarget areas. The Stanislaus County Agricultural Commissioner enforces state regulations relating to agricultural pesticide application, issuing permits with conditions limiting the effects from pesticide application on human health.

(2) Water Use

To supplement an average annual rainfall of only 11 to 15 inches (California Department of Water Resources 2003), local agriculture relies on irrigation to sustain its broad diversity of crops. The Modesto Irrigation District (MID) receives water from local reservoirs, the Tuolumne River, and groundwater. Groundwater is the major source of domestic and industrial water. The area is experiencing a dropping water table because of a depletion of groundwater supplies (City of Modesto and Modesto Irrigation District 2007a). Therefore, competition for water supplies has increased among urban and agricultural users.

Stanislaus County used approximately 41.1 acre-feet (af) of water per acre, and San Joaquin County used approximately 38.41 af of water per acre in 2003 (California Department of Water Resources 2007a).

d. Air Quality

San Joaquin Valley air quality is declining as the valley's population and industry increase. The California Air Resources Board (ARB) estimates that annual ozone-related crop losses in the valley exceed \$150 million. Studies have shown that grape, cotton, orange, alfalfa, and tomato yields are up to 20% below potential yields because of ozone damage to these crops (San Joaquin Valley Air Pollution Control District 2002).

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, county, and city policies in effect that apply to the study area for direct impacts. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which this master environmental impact report (Master EIR) analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Agricultural Lands policies are designated as AL-*X* where *X* is the discrete number).

Although San Joaquin County is included in the cumulative impact scenario, the county's policies are not identified below because state regulations preclude the City from annexing across county lines. Put another way, no lands under San Joaquin County jurisdiction will or can be annexed into the City of Modesto at any time.

a. Federal Regulations

There are no applicable federal policies or regulations. Federal policies apply primarily to federal projects. Federal agencies, in considering projects requiring federal permits (such as the filling of wetlands) or relying on federal funding (such as Community Development Block Grants), are required to examine whether their action will result in the loss of important farmland.

b. State Policies

The California Department of Conservation's (DOC's) Division of Land Resource Protection administers state programs relating to agricultural conservation. The FMMP tracks agricultural land conversion statewide. The California Land Conservation Act of 1965 (Government Code Section 51200 et seq.), or Williamson Act, establishes incentives for property owners to retain agricultural use on their land.

The FMMP has identified important farmland in most of California's agricultural areas. Figure V-4-1, Important Farmland Map, illustrates farmland by classification within the

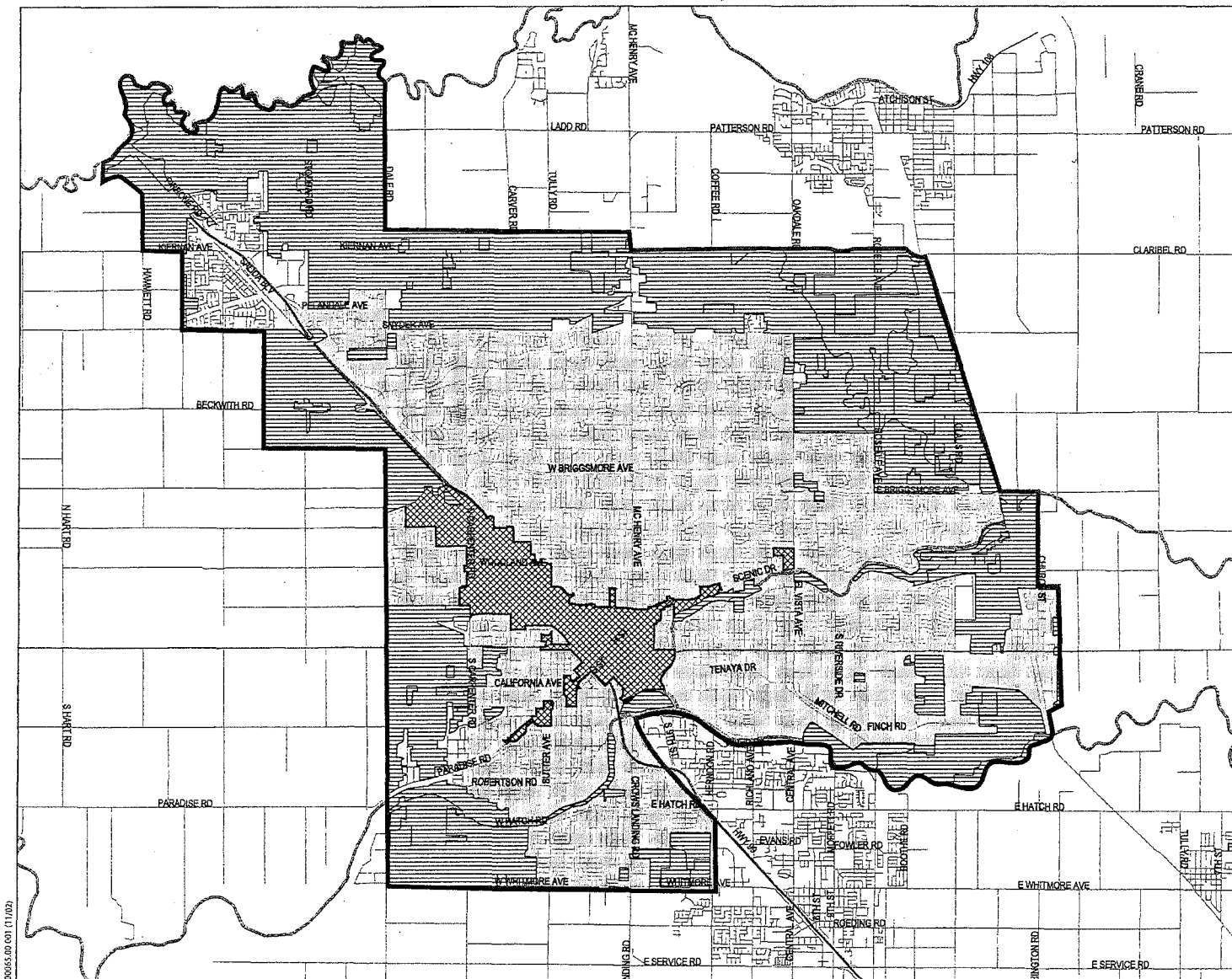




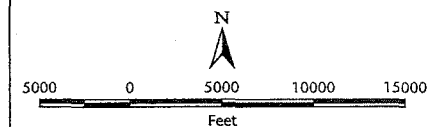


Figure V-4-1
Important Farmland within City
of Modesto Planning Areas

Legend

-  Redevelopment Areas
-  Baseline Developed Areas
-  Planned Urbanizing Area
-  Important Farmland



Source: City of Modesto 2002.

Modesto urban area. Much of the land adjacent to the developed portion of the City, especially to the north, west, and south, is prime farmland. The land immediately northeast and east of Modesto is a mixture of prime farmland, unique farmland, and farmland of local importance. Conditions for agricultural production on the lands east and west of Modesto are unique: excellent soil quality, secure water rights, good water quality, and relatively few drainage problems (Perry pers. comm.).

The FMMP maps five categories of farmland as well as urban and other land. Definitions for each farmland type are listed below.

1. Prime Farmland: lands with the best combination of physical and chemical features able to sustain long-term production of crops. The land must be cropped and supported by a developed irrigation water supply that is dependable and of adequate quality during the growing season, and the land must have been used for production during the previous 4 years.
2. Farmland of Statewide Importance: lands similar to Prime Farmland but with minor shortcomings, such as greater slope or less ability to store moisture. These lands have the same reliable source of adequate-quality irrigation water available during the growing season.
3. Unique Farmland: lesser-quality soils used for producing California's leading agricultural crops. These lands are usually irrigated but may include nonirrigated orchards or vineyards as found in some climatic zones of California.
4. Farmland of Local Importance: dryland grains and irrigated pastures not considered Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.
5. Grazing Land: land on which the existing vegetation is suited to the grazing of livestock.

The information gathered by the FMMP is not used for regulatory purposes; rather, it advises the government and public about the rate of agricultural land conversion.

The Williamson Act restricts development on land for which the landowner has entered into a contract with the respective county to limit land uses to agriculture, open space/recreation, or grazing. This legislation is intended to discourage the conversion of agricultural land to other uses. Typically, the landowner agrees to keep the land in a restricted use for at least 10 years in return for a preferential property tax assessment based on the value of the commodity rather than the value of the land. Within the current City sphere of influence, the main areas subject to Williamson Act contracts are outside the city limits, including west of Carpenter Road and 9th Street, north of Pelandale Avenue and Claratina Avenue, south of Scenic Drive, and south of Yosemite Boulevard near the sphere-of-influence line. Most of the land immediately outside the current sphere of influence is subject to Williamson Act contracts (California Department of Conservation 2006).

c. Stanislaus Local Agency Formation Commission Policies

The Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Section 56000 et seq.) empowers each Local Area Formation Commission (LAFCo) to consider the incorporation of new cities, the annexation of lands to existing cities and special

districts, and other changes to city and district boundaries. Through its responsibilities to govern the approval of annexations and the establishment of spheres of influence, the LAFCo considers soil quality and the availability of irrigation water when assessing the impacts of annexation on agricultural land.

- AL-1:** LAFCo policies direct that the development or use of land for uses other than open space will be guided away from existing prime agricultural lands, unless such action would not promote the planned, orderly, efficient development of an area (Government Code 56377).

d. Stanislaus County Policies

The *Stanislaus County General Plan* (County General Plan) has the following applicable policies.

(1) Land Use Element

- AL-2:** Agriculture, as the primary industry of the County, shall be promoted and protected. (County General Plan, Land Use Element, Goal 3, Policy 16)
- AL-3:** Agricultural uses and churches which require discretionary approval should be referred to that city for comment. The County Planning Commission and Board of Supervisors shall consider the responses of the cities in the permit process. If the County finds that a project is inconsistent with the city's general plan designation, it shall not be approved. Agricultural use and churches shall not be considered inconsistent if the only inconsistency is with a statement that a development within the urban transition area or sphere of influence shall be discouraged (or similar sweeping statement). The city shall be asked to respond to the following questions:
- (a) Is the proposed project inconsistent with the land use designation on the city's general plan? If so, please include a copy of the map (or that portion which includes the subject property) and the text describing uses permitted for the general plan designation. All findings of inconsistency must include supporting documentation.
 - (b) If the project is approved, specifically what type of conditions would be necessary to ensure the development will comply with city development standards such as street improvements, setbacks and landscaping? (County General Plan, Land Use Element, Spheres of Influence, Policy 2)

(2) Agricultural Element

- AL-4:** The County shall continue to implement its Right-to-Farm Ordinance. (County General Plan, Agricultural Element, Policy 1.9, Implementation Measure 1)
- AL-5:** The County shall protect agricultural operations from conflicts with non-agricultural uses by requiring buffers between proposed non-agricultural uses and adjacent agricultural operations. (County General Plan, Agricultural Element, Policy 1.10)
- AL-6:** The County shall require buffers and setbacks for all discretionary projects introducing or expanding non-agricultural uses in or adjacent to an agricultural area consistent with

the guidelines presented in Appendix "A" of the Agricultural Element. (County General Plan, Agricultural Element, Policy 1. 10, Implementation Measure 1)

- AL-7:** To reduce development pressures on agricultural lands, higher density development and infilling shall be encouraged (County General Plan, Agricultural Element, Policy 2.4)
- AL-8:** To the greatest extent possible, development shall be directed away from the County's most productive agricultural areas. (County General Plan, Agricultural Element, Policy 2.5)
- AL-9:** The County shall encourage regional coordination of planning and development activities for the entire Central Valley. (County General Plan, Agricultural Element, Policy 1.22)
- AL-10:** Agricultural lands restricted to agricultural use shall not be assessed to pay for infrastructure needed to accommodate urban development. (County General Plan, Agricultural Element, General Plan Agricultural Element, Policy 2.6)
- AL-11:** Proposed amendments to the General Plan Diagram that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they are consistent with the County's conversion criteria. (County General Plan, Agricultural Element, Policy 2.7)
- AL-12:** The County recognizes the desire of cities and unincorporated communities to grow and prosper and shall not oppose reasonable requests consistent with city and county agreements to expand, providing the resultant growth minimizes impacts to adjacent agricultural land. (County General Plan, Agricultural Element, Policy 2.11)
- AL-13:** In recognition that unincorporated land within sphere of influence of cities or community services districts and sanitary districts serving unincorporated communities ultimately will be urbanized, the County shall cooperate with cities and unincorporated communities in managing development in sphere of influence areas. (County General Plan, Agricultural Element, Policy 2.13)
- AL-14:** In order to mitigate the conversion of agricultural land resulting from a discretionary project requiring a General Plan or Community Plan amendment from "Agriculture" to a residential land use designation, the County shall require the replacement of agricultural land at a 1:1 ratio with agricultural land of equal quality located in Stanislaus County.

The County shall work cooperatively with the nine cities within the County and to encourage them to adopt agricultural conservation policies or ordinances which are consistent with County policies or ordinances in order to undertake an integrated, comprehensive Countywide approach to farmland conservation. It is the ultimate goal of the County to have all nine cities participate in or adopt an agricultural mitigation ordinance that is the same as or substantially similar. (County General Plan, Agricultural Element, Policies 2.15 and 2.17)

e. City of Modesto Policies

The City's UAGP provides the following policies related to agricultural land.

(1) Baseline Developed Area

AL-15: If a subsequent project is within the Baseline Developed Area or Redevelopment Area as identified on the Urban Area General Plan Growth Strategy Diagram [Figure II-1], the project shall be considered to have minimal effect on the conversion of agricultural lands, and no mitigation for that impact is required. (UAGP Policy VII-D.3[a])

(2) Planned Urbanizing Area

AL-16: The Land Use Diagram presented in Chapter III provides adequate land and opportunities to expand and diversify Modesto's economic base to provide for future employment needs through establishment of business park areas. These opportunities should be focused on the types of businesses that will thrive in the 21st century. Simultaneous with this diversification of the economic base, Modesto's current agricultural and industrial bases shall be preserved for as long as possible. (UAGP Policy II-B.1[a.2])

AL-17: The City will not annex agricultural land unless urban development consistent with the General Plan has been approved by the City. (UAGP Policy VII-D.4[a])

AL-18: The City shall support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent. (UAGP Policy VII-D.4[b])

AL-19: The City shall encourage the County to retain agricultural uses on land surrounding the General Plan area and on lands within the General Plan area pending their annexation to the city or development by mutual agreement with the County. (UAGP Policy VII-D.4[c])

AL-20: Where necessary to promote planned City growth, the City shall encourage the development of those agricultural lands that are already compromised by adjacent urban development or contain property required for the extension of infrastructure or other public facilities, before considering urban development on agricultural lands that are not subject to such urban pressures. (UAGP Policy VII-D.4[d])

AL-21: For any subsequent project that is adjacent to an existing agricultural use, the project proponent may incorporate measures to reduce the potential for conflicts with the agricultural use. Potential measures to be implemented may include the following:

- 1) Include a buffer zone of sufficient width between the proposed residences and the agricultural use.
- 2) Restrict the intensity of residential uses adjacent to agricultural lands.
- 3) Inform residents about the possible exposure to agricultural chemicals. (UAGP Policy VII-D.4[e])

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area as they annex and develop. LAFCo and County policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed. The full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. Stanislaus Local Agency Formation Commission Policies

Annexation of land to the City is under LAFCo jurisdiction. The Stanislaus County LAFCo has the following applicable policy as described in Section A-4 above, which, when applied to subsequent projects, will avoid or reduce impacts: AL-1.

b. Stanislaus County Policies

The territory outside the city limits is under County jurisdiction. The County General Plan has the following applicable policies as described in Section A-4 above, which, when applied to subsequent projects, will avoid or reduce impacts: AL-2 through AL-14.

c. City of Modesto Policies

The City's UAGP provides the following policies as described in Section A-4 above, related to agricultural land, that when incorporated into subsequent projects will avoid or reduce impacts: AL-15 through AL-21.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects of agricultural land conversions on the environment, using either Appendix G of the State CEQA Guidelines or the model Land Evaluation and Site Assessment (LESA) system developed by the DOC (Public Resources Code [PRC] Section 21095). In addition, according to the State CEQA Guidelines (Section 15206[b][3]), projects resulting in cancellation of Williamson Act contracts for parcels of land 100 acres or more are considered to be of statewide, regional, or area-wide significance.

Appendix G of the State CEQA Guidelines is a sample checklist for assessing potential impacts on agricultural land. It offers the following broad suggestions for impact assessment. Would the project:

- a. cause a conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the FMMP maps;
- b. conflict with existing agricultural zoning or a Williamson Act contract; or
- c. contribute to changes in the existing environment that could result in a conversion of farmland to nonagricultural uses?

2. Thresholds of Significance Suggested by Other Analytical Methods

No thresholds of significance by other analytical methods apply.

3. Thresholds of Significance Adopted by the City of Modesto

The UAGP will have a significant impact on agricultural land if it will convert areas of prime agricultural land to urban uses; impairs the agricultural productivity of prime agricultural land; or results in substantial pesticide overspray, dust, and noise at urban uses.

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The Baseline Developed Area and Redevelopment Area are already developed. The impacts of development in these areas on agricultural lands will be less than significant.

b. Planned Urbanizing Area

From 1995 to 2025, development under the UAGP would convert approximately 22,600 acres of Prime Farmland; 1,700 acres of Unique Farmland; 200 acres of Farmland of Statewide Importance; and 1,600 acres of Farmland of Local Importance to urban uses within the Planned Urbanizing Area.

The UAGP would place urban uses in proximity to existing agricultural activities. These urban uses would be subject to noise, dust, and potential chemical overspray from agricultural uses, which could result in complaints, especially from residential areas. The UAGP results in an approximately 28.5-mile-long boundary between these uses. Therefore, approximately 1,200 acres of urban uses (within a 350-foot zone from the boundary) could be affected adversely. If agricultural activities are not conducted within a 350-foot zone of those uses, the efficiency of up to 1,200 acres of agricultural lands would be reduced.

LAFCo (AL-1) and City (AL-15 through AL-21) policies will result in the orderly conversion of agricultural land as available developable land is occupied within the city. However, these policies will not avoid the impact. This impact is significant and unavoidable.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental impacts; whether the UAGP Amendment (the proposed project) will make a cumulatively considerable contribution to any such impacts; and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether a cumulatively significant effect exists in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable (Section 15130[a] of the State CEQA Guidelines).

Development in Stanislaus and San Joaquin Counties, including unincorporated areas and the cities, and the development envisioned in the UAGP would result in cumulative impacts related to the conversion of agricultural land. Modesto, as the largest city in the county, is expected and planned to accommodate a substantial share of Stanislaus County's projected population growth. Although policies in the UAGP and County General Plan encourage efficient land use and minimize agricultural conversion, the loss of agricultural land from projected regional population growth is inevitable. Accordingly, growth within Modesto's planning area would contribute considerably to this loss. This impact is considered significant and unavoidable.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

There is no such impact on agricultural resources.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

No mitigation measure is proposed. The applicable policies of the Modesto UAGP, listed in part A-5.c of this section, *Policies Which Avoid Impacts*, would reduce (but not eliminate) direct

impacts by encouraging higher density development than is typical for new development in California. Implementation of UAGP policies also would reduce (but not eliminate) direct impacts by phasing annexation and development so that these actions occur in a logical progression based on sewer capacity and the completion of comprehensive plans for each area of new development. The City is considering adopting an agricultural land conversion mitigation measure but is not ready to commit to specific mitigation at this time. This sort of major policy decision is beyond the scope of this proposed project, whose objective is to make minor updates to the UAGP necessary to incorporate previously adopted policies.

2. Measures Which Mitigate Cumulative Impacts

No mitigation measure is proposed. The adopted policies of the UAGP listed in part A.5.c of this section, *Policies Which Avoid Impacts*, would reduce (but not eliminate) cumulative impacts by encouraging infill and discouraging development in unincorporated, nonurbanized areas except where necessary to accommodate Modesto growth.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

None of the alternatives would substantially reduce or avoid the identified impacts.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the impacts on agricultural land as long as the following circumstances have not changed.

1. The lead agency for subsequent projects will be the City or any responsible agency identified in the Master EIR.
2. The LAFCo (AL-1), County (AL-2 through AL-14), and City (AL-15 through AL-21) policies described in Section A-4 above continue to be in effect to reduce, avoid, or mitigate impacts.

3. No additional significant effect on agricultural lands is identified within the Modesto planning area, and no new mitigation measures may be necessary.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The Modesto planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The Modesto planning area is expanded beyond the May 2008 (estimated date of Master EIR update certification) boundaries.
3. The agricultural industry becomes economically noncompetitive and suffers a serious decline.

Section 5

Increased Demand for Long-Term Water Supplies

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect increased demand for long-term water supplies. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on water supplies is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The California Water Plan and the UAGP will be used as the bases for analysis. The study area for cumulative impacts on water supplies is the Modesto and Turlock groundwater basins.

3. Existing Physical Conditions in the Study Area

All municipal and most industrial water service in the Modesto planning area is provided by the City's municipal water supply system. The City owns and operates the city drinking water system and 10 smaller systems for the communities of Empire, Salida, Waterford, Hickman, Del Rio, Grayson, Ceres, and three small systems in Turlock. The City derives drinking water from a combination of groundwater and surface water sources. There are over 77,000 water connections, 927 miles of water lines in the water system, 118 groundwater wells, and seven water tanks. Of the 118 groundwater wells, the City operates 90 that are located in the City's planning area, and in 2005, 97 of the 118 wells were in operation. In January 1995, the city started deliveries of surface water from the Modesto Regional Water Treatment Plant (MRWTP) which draws water from Modesto Reservoir located on the Tuolumne River, approximately 17 miles east of Modesto. The Modesto Irrigation District (MID) operates the MRWTP under contract to the City. The City has elected to continue to diversify its water supply alternatives by developing additional surface water supplies to offset groundwater pumping. Phase Two of the MRWTP will provide an additional 33,602 acre-feet per year (af/y) (per the Treatment and Delivery Agreement between the City and MID, new delivery will be 67,204 af/y) of surface water supplies to offset groundwater pumping to meet demands north of the Tuolumne River. (An acre-foot is approximately 326,000 gallons.)

a. Groundwater

The City's planning area lies at the northern end of the San Joaquin Valley and overlies two designated groundwater basins that are delineated by geographic and hydrologic features. The Turlock groundwater basin encompasses the area south of the Tuolumne River to the Merced River and from the San Joaquin River to the base of the Sierra Foothills. The Modesto groundwater basin (also known as Tuolumne and Stanislaus Rivers groundwater basin) extends north from the Tuolumne River to the Stanislaus River and east from the San Joaquin River to the base of the Sierra foothills. The groundwater basins are recharged from streamflow infiltration, deep percolation of irrigation water, and precipitation. Large areas of the county are considered principal groundwater recharge areas, as well.

Both of the groundwater basins consist of similar hydrogeologic properties. The groundwater basins are composed of three units: (1) a lower aquifer unit (Unit 1) that is confined in the west (beneath Unit 2) and unconfined in the east; (2) a shallow, unconfined aquifer (Unit 2); and (3) an aquitard, known as the Corcoran Clay, an impervious barrier separating the two aquifers at a depth of 130 to 220 feet below ground surface. The Corcoran Clay, which underlies the entire San Joaquin Valley, is generally thickest near the center of the valley and progressively thinner near the edges, with the eastern edge located about 3 miles east of Modesto. The Corcoran Clay layer in the project area ranges from 40 to 60 feet in thickness. The lower aquifer (Unit 1) is up to 750 feet thick, and the thickness of the saturated zone of the upper aquifer (Unit 2) varies with seasonal pumping and recharge cycles. Within the areas where the Corcoran Clay layer is present, most wells are completed in the upper Unit 2 aquifer because water quality is generally better than in Unit 1.

Extensive use of groundwater in the project area has resulted in historical conditions of overdraft (defined as the extraction of groundwater in excess of its long-term average rate of natural recharge). The City of Modesto, Stanislaus County (County), California Department of Water Resources (DWR), MID, and Turlock Irrigation District (TID) are all involved in monitoring the status of groundwater storage and associated groundwater levels in the region. The City has participated with other stakeholder agencies in the preparation of groundwater management plans for both groundwater basins (Black and Veatch et al. 1995; City of Modesto 1997) that describe the historical trends in groundwater levels and aquifer overdrafting.

Groundwater levels in the Turlock groundwater basin have dropped as much as 90 feet in areas east of Modesto, with declines averaging about 5 feet west of Modesto near the San Joaquin Valley trough (City of Modesto 1997). The Turlock basin is estimated to be overdrafted by 70,000 to 85,000 af/y.

Groundwater levels in the Tuolumne and Stanislaus Rivers groundwater basin have also declined; however, the estimated rate of overdrafting is much less than in the Turlock groundwater basin. Depending on the method used to evaluate overdraft, estimates range from 30,000 af/y to 3,000 af/y (Black and Veatch et al. 1995). The majority of the overdraft in the Tuolumne and Stanislaus Rivers groundwater basin is occurring in the Modesto planning area, where declines in the groundwater levels have been larger than in the rural areas of the basin.

In late 2003, the City, MID, as well as the County, DWR, and TID, participated in development of an Integrated Regional Groundwater Management Plan as part of the Stanislaus and Tuolumne Rivers' Groundwater Basin Association. The Association's key objectives are to maintain overall groundwater levels, in order to provide a long-term water source for the region, and to protect groundwater quality. The *Final Draft Integrated Regional Groundwater Management Plan* was completed in June of 2005 in compliance with the Groundwater Management Planning Act of 2002 (Senate Bill [SB] 1938) and the Integrated Regional Water Management Planning Act of 2002 (SB 1672). The *Integrated Regional Groundwater Management Plan* covers the entire Modesto Groundwater Subbasin as well as parts of the Eastern San Joaquin Groundwater Subbasin. The Plan was adopted by MID and the City in July of 2005.

Regional actions promoted by the *Integrated Regional Groundwater Management Plan* are expected to advance the following water management strategies.

- Increase local and regional water supply reliability and water use efficiency.
- Promote groundwater recharge and management.
- Support water conservation.
- Implement watershed management programs.
- Promote water recycling.
- Foster conjunctive use.
- Improve water quality.
- Improve storm water capture and management.

The *Integrated Regional Groundwater Management Plan* establishes recommended approaches for the member agencies.

b. Water Supply and Demands

Water consumption in the City of Modesto fluctuates seasonally with demand being lowest in the winter and highest in the summer. In the spring of 2007, the City, in cooperation with MID, adopted the *2005 Joint Urban Water Management Plan* (UWMP). The 2005 UWMP identifies existing and long-term water supply sources and describes the supply and conservation management programs for a 20-year planning timeframe (City of Modesto and Modesto Irrigation District 2007b). Based on the projected city resident population and daily per capita water use, the 2005 demand for municipal water supply was 79,895 af/y (City of Modesto and Modesto Irrigation District 2007b). The existing water supply sources consist of a maximum delivery of surface water from the MRWTP of 30 million gallons per day (mgd) (33,600 af/y) with the remainder provided from groundwater.

The City is pursuing additional surface water supplies from the TID through implementation of a Surface Water Supply Project (SWSP), which would provide 11.5 mgd to customers in South Modesto and parts of Ceres. Currently the SWSP is in the pre-design phase and is projected to be operational in 2011. The City has a Water Shortage Contingency Plan that is discussed in detail in the UWMP. The City has identified three water shortage stages

pursuant to their current UWMP, adopted by the City in 1991. The stages specify reduction objectives ranging from 10 to 50 percent of normal demand, depending on the water shortage stage declared. In the summer of 2002, water pressures in the City of Modesto dipped below City and state water system standards. In response, the Modesto City Council adopted Stage I restrictions of the Drought Contingency Plan on March 25, 2003. The City is currently still in Stage I of the Water Shortage Contingency Plan. Because MID is a wholesale supplier and does not directly serve any urban customers, MID does not have a separate Water Shortage Contingency Plan.

The total estimated quantity of water supply available for future demands under the UAGP varies depending on the assumptions about the future availability of surface and groundwater supplies and management actions undertaken for water conservation and use of reclaimed wastewater in lieu of freshwater supplies. The future surface water supply available to the City can be increased by expanding the capacity of the MRWTP to 60 mgd (67,200 af/y); however, at this time water rights are not available to expand the system beyond 60 mgd.

Based on groundwater modeling studies developed by the U.S. Geological Survey (USGS) in 1971 and subsequent reports commissioned by the City, MID, and the former Del Este Water Company, it was determined that the safe yield of groundwater pumping in the Modesto planning area that would ensure that overdrafting of the aquifers does not occur is about 36 mgd (40,000 af/y) (City of Modesto and Modesto Irrigation District 2007b). With the current surface water treatment capacity of 30 mgd, sustained groundwater yield of 36 mgd, and current rate of per capita water use, the existing water supplies are able to support a population of 237,676 residents, which is the population estimate as of January 2006. (City of Modesto and Modesto Irrigation District 2007b.)

The UAGP and UWMP identify a number of actions that the City is currently conducting or planning to implement to reduce demands on the water supply. These measures include limiting groundwater extraction to the level considered a safe yield for the aquifers, increasing the use of reclaimed wastewater, implementing mandatory residential water metering, and implementing drought-response measures. The UWMP describes the City's 3-staged Water Shortage Contingency Plan that is implemented during times of drought. Each stage of the drought contingency plan allows the City to implement more restrictive water rationing from relatively simple mechanisms (e.g., outdoor watering restrictions, requiring leaks to be fixed, reducing restaurant water use, requiring positive shutoff and low-flow water fixtures) to very restrictive measures such as mandatory system retrofitting requirements and imposing moratoriums on new construction. The City has implemented additional distribution system improvements, maintenance programs, and automated control systems in recent years to increase system efficiency and reduce water losses. An existing City ordinance requires water meters to be installed on new construction. Although the City currently charges a flat rate for water use, installation of water meters will reduce water use by allowing the City to implement structured water pricing policies if deemed necessary.

The City completed the Northern San Joaquin Valley Water Reclamation Project study in June 2005. The study included assessment of recycled water markets, review of regulatory requirements, development and evaluation of alternatives for regional water recycling and wastewater treatment, selection of a recommended alternative(s), and development of an implementation plan. A number of the cities surrounding Modesto provide municipal wastewater services in their service areas. These cities, plus local irrigation districts in the

region and other agencies such as Stanislaus County government, were identified as potential stakeholders for the Northern San Joaquin Valley Water Reclamation Project. The following potential regional participants were contacted regarding their interest in participating in a regional treatment and recycled water project:

- | | |
|----------------------|-------------------------------|
| ■ City of Ceres | ■ City of Patterson |
| ■ City of Delhi | ■ City of Ripon |
| ■ City of Denair | ■ City of Riverbank |
| ■ City of Escalon | ■ Community of Salida |
| ■ City of Hilmar | ■ City of Turlock |
| ■ City of Hughson | ■ City of Waterford |
| ■ Community of Keyes | ■ Turlock Irrigation District |
| ■ City of Manteca | ■ Stanislaus County |
| ■ City of Oakdale | |

The cities of Oakdale, Riverbank, Hughson, and Waterford, along with the unincorporated communities of Grayson and Westley, did not engage in the process or express interest in the project; however, these communities are located in the vicinity of Modesto and may have interest in the future. Hilmar expressly stated they did not have interest in the project. The City currently uses approximately 29,000 af/y of reclaimed wastewater on 2,600 acres of pasture irrigation, and there is an existing demand of approximately 2,000 af/y for area golf courses and parks. The use of reclaimed water is expected to increase in the future to at least 45,000 af/y by 2030.

The DWR, in its 1998 California Water Plan Update, Bulletin 160 (California Department of Water Resources 1998) projects that by 2020, while the region will have adequate water supplies during normal years, there will be a significant shortage of water supply within the San Joaquin River basin (658,000 af/y) under drought conditions.

c. Water Distribution Facilities

The City currently owns and operates approximately 500 miles of water distribution lines in the Modesto planning area and more than 900 miles throughout the entire system area. The system consists mostly of 6- and 8-inch pipelines emanating from grids of 10- and 12-inch pipe. The City also has six storage tanks ranging in size from 225,000 gallons to 2 million gallons, with a total storage capacity of 16 million gallons. The City tries to maintain a service standard of approximately one groundwater well per square mile of development. The City uses granular activated-charcoal filters at selected well sites to remove contaminants in the water supply. The City's maintenance program includes routine system flushing, pump maintenance, efficiency testing, water quality testing, and exercising valves. The City has made numerous connections between the former Del Este Water Company facilities and Modesto distribution system to improve water pressure and circulation.

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state and local (County and City) policies and summary of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Water Supply policies are designated as WS-*X*, where *X* is the discrete number).

a. Federal Policies

Section V-10, *Flooding and Water Quality*, provides a discussion of federal policies related to drinking and surface water quality.

b. State Policies

Section V-10, *Flooding and Water Quality*, provides a discussion of state policies related to drinking and surface water quality. Other state policies related to water supplies are provided below.

WS-1: Chapter 3, Division 1, of the California Water Code contains provisions that allow public and private agencies that provide water for municipal uses to implement drought water conservation programs. Such measures include encouraging water conservation through higher unit charges for higher uses, installation of water meters, and requiring installation of reasonable water-saving and water-reclamation devices for new services. (The City is currently installing water meters to meet California law.)

WS-2: The Urban Water Management Planning Act (Water Code Sections 10610 et seq.) requires preparation of an UWMP by any public or private entity that provides municipal water service to more than 3,000 customers or delivers more than 3,000 af/y. The UWMP describes and evaluates reasonable, practical, and efficient uses of the entity's water supplies, including reclamation and conservation activities.

State law requires early consultation between cities and counties and affected water agencies when specific plans are adopted or when amendments or revisions to the Land Use Element of the UAGP are proposed that would result in a net increase in the stated population density or building intensity (State CEQA Guidelines Section 15083.5). The city or county must request from affected water agencies a determination of whether the projected water demand associated with the proposed project was included in their last UWMP and whether its total projected water supplies available during normal, single-dry, and multiple-dry years as included in the 20-year projection contained in their UWMP will meet the projected water demand associated with the proposed project, in addition to the water agency's existing and planned future uses. If the lead agency determines that water supplies will not be sufficient, the lead agency must include that determination in its findings for the project.

- WS-3:** The DHS is responsible for ensuring that the municipal water distribution systems are designed and constructed in compliance with California Waterworks Standards.

c. Stanislaus Local Agency Formation Commission Policies

- WS-4:** Stanislaus Local Agency Formation Commission (LAFCo) oversees the annexation of unincorporated lands into city limits. Prior to annexation, the applicant is required to show that the areas will have adequate water services. LAFCo develops and determines the sphere of influence of each local government agency within the County, including the present capacity for public facilities such as water supply. LAFCo discourages urban sprawl, which can best be described as irregular and disorganized growth occurring without apparent design or plan. This pattern of development is characterized by the inefficient delivery of important urban services, such as water supply.

Adopted LAFCo policies include the requirement that a plan for service be prepared and submitted by the local agency being affected by the proposed annexation. The plan of service must include information that the range and level of services currently available within the existing boundaries will be at least maintained in the proposed annexation area. Annexations which reduce the existing levels of service will not be approved by the LAFCo.

When determining spheres of influence for cities and special districts, LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require consideration of several factors such as: growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to provide services; status of, and opportunities for, share facilities; and accountability for community service needs, including governmental structure and operational efficiencies.

d. Stanislaus County Policies

- WS-5:** Urban development shall be discouraged in areas with growth-limiting factors such as high water table or poor soil percolation, and prohibited in geological fault and hazard areas, flood plains, riparian areas, and airport hazard areas unless measures to mitigate the problems are included as part of the application.
- WS-6:** Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc.
- WS-7:** Protect groundwater aquifers and recharge areas, particularly those critical for the replenishment of reservoirs and aquifers.
- WS-8:** New development that does not derive domestic water from pre-existing domestic and public water supply systems shall be required to have a documented water supply that does not adversely impact Stanislaus County water resources.

- WS-9:** Promote the use of water reservoirs for multiple recreational purposes, where appropriate.

e. City of Modesto Policies

The UAGP provides the following policies related to water supplies.

- WS-10:** Each Specific Plan shall be accompanied by a long-range financing strategy which provides reasonable estimates of costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project which serves to implement the subject Comprehensive Plan. If new public facilities are required which will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms. (UAGP Policy III-D.1[d])

(1) Baseline Developed Area

- WS-11:** During review of all proposed development, the City shall require, as a condition of approval, that all developments reduce their potable water demand. The City should refer to Table 5-1 in the Joint Urban Water Management Plan for potential techniques to reduce potable water demand, as well as those identified in the City's current UWMP. (UAGP Policy V-C.3[a])
- WS-12:** The City's Public Works Director may require water infrastructure master plans for the public infrastructure or when otherwise pertinent to provision of service at adopted service levels for the specific plan areas or other projects depending on site issues and location. (UAGP Policy V-C.3[b])
- WS-13:** Individual development projects, including lot splits, are subject to review by the City's Public Works Director for adequate water supply. (UAGP Policy V-C.3[c])
- WS-14:** According to state law (Senate Bill 1087 of 2005), no provider of water services may deny or condition the approval of an application for services, or reduce the amount of the services applied for, if the proposed development includes housing affordable to lower income households, except upon making specific findings in accordance with SB 1087. (UAGP Policy V-C.3[d])
- WS-15:** All new connections to the public water system shall have meters installed. In addition, on or before January 1, 2025, all existing municipal and industrial service connections shall have water meters installed. On or before January 1, 2010, the City shall charge all customers with water meters based on the volume of water delivered. (UAGP Policy V-C.3[e])
- WS-16:** The City of Modesto shall prepare and adopt an Urban Water Management Plan every five years in accordance with Water Code Section 10620. (UAGP Policy V-C.3[f])
- WS-17:** The City shall implement the Demand Measurement and Conversion Measures identified in the City's adopted Urban Water Management Plan. (UAGP Policy V-C.3[g])
- WS-18:** The City of Modesto shall prepare and maintain a Water Master Plan. The Water master plan shall be updated, as needed, to incorporate changes in growth projections, water supplies, and demands. (UAGP Policy V-C.3[h])

- WS-19:** The City of Modesto should continue to pursue additional potential water supply alternatives available to the City to accommodate growth and meet future demand in both normal and dry years. (UAGP Policy V-C.3[i])
- WS-20:** The City of Modesto will encourage the optimum beneficial use of water resources within the City. The City shall strive to maintain an adequate supply of high-quality water for urban uses. At a minimum, potable water supplies (including well water) delivered to water customers shall conform to the primary maximum contaminant levels as defined in the California Code of Regulations, Title 22, Sections 64431-64444. (UAGP Policy V-C.3[j])
- WS-21:** The City of Modesto will strive to stabilize groundwater levels and eliminate groundwater overdraft, as part of a conjunctive groundwater-surface water management program. The City shall view regional water resources, such as groundwater, surface water, and recycled wastewater, as an integrated hydrologic system when developing water management programs. (UAGP Policy V-C.3[k])
- WS-22:** The City of Modesto will be the sole provider of municipal and industrial water services to the area within the City's Sphere of Influence, with the exception of private wells. The City will cooperate with the overlying agricultural water providers, MID and TID, and with adjacent municipal and industrial providers for the mutually beneficial management of the limited water resources. The City will also take into consideration its public trust duty with regard to environmental uses of water resources. (UAGP Policy V-C.3[l])
- WS-23:** The City will provide water service within the original Del Este service area. (UAGP Policy V-C.3[m])
- WS-24:** Water facilities will be constructed, operated, maintained, and replaced in a manner that will provide the best possible service to the public. The City shall ensure that infrastructure is installed before or concurrently with development. The City will take a comprehensive approach to financing, using a blend of special taxes, benefit assessments, and other methods to ensure that infrastructure installation occurs in a timely manner. (UAGP Policy V-C.3[n])
- WS-25:** The City will continue to establish guidelines, policies, and programs to implement water conservation to the maximum extent feasible. Funding for large conservation rebate or exchange programs should be in place. The City shall strive to maximize the utilization of water resources when developing and implementing its Economic Development Strategy. (UAGP Policy V-C.3[o])
- WS-26:** The City of Modesto shall participate in the development of a TID Surface Water Supply Project (SWSP). (UAGP Policy V-C.3[p])
- WS-27:** The City of Modesto shall implement Local Basin Management Objectives (BMOs), discussed in the Integrated Regional Groundwater Management Plan, that relate to the specific approaches to water management goals including groundwater supply, groundwater quality, and protection against inelastic land surface subsidence. (UAGP Policy V-C.3[q])
- WS-28:** The City of Modesto shall support the Regional BMOs discussed in the Integrated Regional Groundwater Management Plan. (UAGP Policy V-C.3[r])

This section addresses the requirements of Government Code Section 66455.3 for proposed residential subdivisions of over 500 dwellings.

- WS-29:** For projects within the City's water service area, a copy of any project application shall be sent to the City's Public Works Department within 5 days of the application being accepted as complete for processing by the City of Modesto. (UAGP Policy V-C.3[t])
- WS-30:** When approving a proposed residential subdivision of over 500 dwelling units, the City of Modesto must include a condition requiring a sufficient water supply to be available. Proof of availability of water supply depends upon several factors. (UAGP Policy V-C.3[u])

This section addresses the requirements of Senate Bill 221 and 610 of 2001 that establish the requirement for public water systems to prepare water supply assessments for projects as follows:

- WS-31:** A project means any of the following (consistent with Water Code Section 10912): a proposed residential development of more than 500 dwelling units; a proposed shopping center or business establishment employing more than 1,000 persons or having more than 250,000 square feet of floor space; a proposed hotel or motel, or both, having more than 500 rooms; a proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area; a mixed-use project that includes one or more of the projects identified above; or a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. (UAGP Policy V-C.3[v])
- WS-32:** The City shall consider adopting more specific or restrictive standards for the definition of a project within its water service area. (UAGP Policy V-C.3[w])
- WS-33:** For projects requiring an environmental impact report, negative declaration, or mitigated negative declaration under CEQA, the City, as the retail water supplier, shall prepare a Water Supply Assessment (WSA) which complies with the requirements of SB610 and SB221 in evaluating the sufficiency of water supply to serve the project, and include the findings of the WSA in the CEQA document. (UAGP Policy V-C.3[x])

This section addresses the requirements of Senate Bill 2095 of 2000 (Government Code Section 65601 et seq.) that relate to the mandated use of recycled water for landscaping purposes as follows:

- WS-34:** Any local public or private entity that produces recycled water and determines that within 10 years it will provide recycled water within the boundaries of the City of Modesto must notify the City of that fact. Within 180 days of receipt of the notice, the City of Modesto shall adopt and enforce a specified recycled water ordinance. The recycled water ordinance must comply with the recycled water policies detailed in the City of Modesto's Urban Water Management Plan. (UAGP Policy V-C.3[y])

(2) Planned Urbanizing Area

- WS-35:** All of the water policies for the Baseline Developed Area apply within the Planned Urbanizing Area. (UAGP Policy V-C.4[a])
- WS-36:** The City of Modesto shall coordinate land development projects with the expansion of water treatment and supply facilities. (UAGP Policy V-C.4[b])

WS-37: The City of Modesto should develop and implement a water recycling program to reduce the demands for new water supplies in the City and basin. (UAGP Policy V-C.3[s])

The City is currently working with other local stakeholder agencies to formulate groundwater management plans pursuant to the Groundwater Management Act (also known as AB 3030 process) as outlined in California Water Code Sections 10750 et seq. Draft groundwater management plans have been prepared for both the Turlock Groundwater Basin and the Stanislaus and Tuolumne Rivers' Groundwater Basin. Groundwater management plans are developed to address identification and management of wellhead protection and recharge zones, regulation of migration of contaminated groundwater, control of saline intrusion, administration of well abandonment, mitigation of overdraft, replenishment of groundwater, monitoring of groundwater levels and storage, facilitation of conjunctive use operations, administration of local groundwater cleanup projects, development of relationships with state and federal regulatory agencies, and review and coordination of land-use plans.

The City is also working with MID to develop an Integrated Water Resources Plan (IWRP) designed to evaluate all sources of water and their potential uses, including surface water, groundwater, wastewater, and storm water.

5. Policies Which Avoid Impacts

The policy reference numbers are listed, and the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. Stanislaus LAFCo Policies

LAFCo annexation policies require the provision of water supply to areas annexing into the City. These policies are summarized in WS-4.

b. Stanislaus County Policies

The Land Use Element of the County General Plan ensures that an effective level of service for water supplies is provided in unincorporated areas. These policies are summarized in WS-5.

c. City Policies

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area.

1. Citywide: WS-10.

2. Baseline Developed Area: WS-11 through WS-34
3. Planned Urbanizing Area: WS-35 through WS-37

In addition, the City has adopted the Turlock Groundwater Basin Management Plan and is in the process of completing the Tuolumne and Stanislaus Rivers' Groundwater Basin Management Plan in cooperation with other stakeholder agencies. Also, the City requires all new development to install stormwater drainage facilities that result in percolation of at least 80% of the urban runoff into the groundwater.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by CEQA

Appendix G of the state CEQA Guidelines is a sample checklist for assessing potential impacts on water supplies. It offers the following broad suggestions for impact assessment. Would the project:

- a. substantially deplete groundwater supplies or interfere with groundwater recharge;
- b. require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- c. exceed existing water supply entitlements or require expansion of entitlements?

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are available.

3. Thresholds of Significance Adopted by the City of Modesto

The UAGP will have a significant impact on long-term water supplies if development will result in water demand that exceeds the capacity for recharge or that will contribute to overdraft of the groundwater basins.

4. Significant Direct Impacts

a. Baseline Developed Area, Planned Urbanizing Area, and Redevelopment Area

Future development consistent with the UAGP would result in a population of approximately 334,000 to 357,000. The upper end of this population range would require an estimated water supply of approximately 110 mgd (120,000 af/y). The MRWTP is expanded from

33.6 mgd to 67.2 mgd, and the City is entering into agreement with TID for approximately 12.8 mgd. In 2005 the City produced approximately 46 mgd from groundwater pumping; however, projected level of groundwater pumping is estimated to be approximately 39 mgd by 2025. The sum of these sources would equal 120 mgd. This would be more than sufficient for the projected population growth under the UAGP. During drought years the city can extract up to 7 mgd extra from groundwater pumping. In addition, the City has a Water Shortage Contingency Plan that is discussed in detail in the UWMP, which identifies the necessary steps to take in the event of a water shortage.

The UWMP indicates that mandatory residential water metering could significantly reduce the need to develop additional water sources. In this vein, the City is currently retrofitting existing non-metered connections with the goal of complete metering by 2020 (City of Modesto 2007). However, for the purposes of this analysis, it is assumed that the projected future population and associated water demand would require some increased development and entitlement of surface water supplies for the City. In addition, the additional urban development would increase the amount of impervious surface areas that could potentially restrict the amount of natural groundwater recharge from rainfall and thereby further exacerbate problems associated with declining groundwater levels.

UAGP policies are established to limit groundwater extractions to the safe yield of the aquifer and thereby avoid aquifer overdrafting. In addition, the UWMP requires that new urban development would proceed in conjunction with the availability of water supplies and distribution facilities. It is assumed that increased entitlement of surface water supplies, such as a water transfer from another water purveyor, would undergo independent environmental review pursuant to CEQA. Therefore, potential impacts to surface and groundwater supplies are considered less than significant.

b. Impacts on Water Distribution Facilities

The projected City population would require expansion of the MRWTP to its full 60 mgd capacity, development of additional groundwater wells, and construction of additional water distribution and treatment facilities. Construction of some of the required facilities would most likely require site-specific environmental impact assessments to be conducted under CEQA. Consequently, the potential environmental impacts of the UAGP are considered less than significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project which has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable

contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

The population of Stanislaus County is projected to increase at a rate similar to Modesto. The California Department of Finance (DOF) estimates that the county population, approximately 521,500 persons in 2007 (California Department of Finance 2007a), will reach approximately 857,900 persons by 2030 (Finance does not have a 2025 projection) (California Department of Finance 2007b). This will result in substantial additional demands on the available water supplies. Cumulative impacts to water supplies could occur from increased groundwater extraction adjacent to the Modesto planning area boundaries that may result in overdrafting of the aquifer. The City of Modesto spans two groundwater subbasins: the Modesto Subbasin north of the Tuolumne River and the Turlock Subbasin south of the river. In 2005, the City operated 97 groundwater wells located throughout its entire water service area (81 wells in the contiguous area and 16 wells in outlying areas). The wells within the City's contiguous service area discharge directly into the distribution system or into one of the City's water storage tanks. An operational yield is defined as the average annual amount of groundwater that can be extracted from a groundwater basin, while maintaining a non-overdraft condition. The operational yields of the Modesto and Turlock subbasins are currently unknown, and the City is currently participating in a study with the USGS to quantify operational yields for both groundwater subbasins. The quantity of water that can be pumped by the City depends on the amount of groundwater available in the basin, the ability of the City's wells to pump (e.g., operational capacity), as well as pumping by other users. However, until an actual operational yield value can be developed for both the Modesto and Turlock subbasins through hydrogeologic studies, the City will rely on available information to develop a reasonable estimate for an operational yield. Based on well level and pumping data over the past 25 years, an operational yield for the Modesto water service area was calculated to be 54,161 af/y. However, the City's commitment to limit groundwater extractions to a designated safe yield of 40,000 af/y would mitigate the City's contribution to this impact.

In addition, the City is in the process of converting to all metered water usage. Currently, all commercial, industrial, and institutional water accounts are metered. Since 1991, meters have been installed for all new construction, but all accounts are not necessarily being billed at metered rates. Starting in 2005, the City began retrofitting single-family flat-rate customers to meters at a rate of 6% per year. Based on the City's metering plan, existing single-family flat-rate customers will be gradually converted to metered rates once all non-metered, flat-rate customers have been converted to metered use. This will ultimately decrease the amount of per capita water use.

However, during drought years, despite available options, significant water shortages are forecast for the San Joaquin River basin by 2020. Modesto would make a cumulatively considerable contribution to the cumulative impact on water supply under drought conditions. This is a significant and unavoidable impact.

6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis

There is no such impact on long-term water supplies.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The adopted policies for water conservation listed in Section A.5[c] of the UAGP will reduce impacts to a less-than-significant level.

2. Measures Which Mitigate Cumulative Impacts

The adopted policies of Stanislaus LAFCo, the Stanislaus County General Plan, and the UAGP listed in Section A-5.a, b, and c will reduce cumulative impacts to a less-than-significant level during normal years. There will be a significant and unavoidable impact during drought years by 2020.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Alternatives 1 and 2 would have essentially the same impacts as the proposed project.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified in the 1995 Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required in the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on groundwater quality as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City of Modesto or any responsible agency identified in the Master EIR.

2. The policies identified in Section A-4 above, *Existing Policies Applying to the Study Area* (WS-1 through WS-36), continue to be in force to reduce, avoid, or mitigate impacts.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond the March 10, 2003 (estimated date of certification for UAGP/Master EIR Update) boundaries.

Section 6

Increased Demand for Sanitary Sewer Services

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect increased demand for sanitary sewer services. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on demand for sanitary sewer services is the Modesto planning area. The Modesto wastewater collection and treatment system serves Modesto as well as the unincorporated community of Empire and some Stanislaus County areas by agreement and a portion of the City of Ceres. The City of Modesto's (City's) facilities process domestic wastewater from residential and commercial sources and wastewater generated by industrial facilities (i.e., local canneries) in the southeastern part of the city. The City operates a primary treatment plant on Sutter Avenue and a secondary treatment facility located south of the community on Jennings Avenue near the San Joaquin River. A limited area within the City's sphere of influence relies on septic tanks for wastewater disposal and is not served by the sewer system, primarily in the county "islands."

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative impacts, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the UAGP and City's Wastewater Master Plan (adopted in March 2007). The study area for cumulative impacts on demand for sanitary sewer services is the Modesto planning area because that is the area that would be served by the City wastewater disposal system.

3. Existing Physical Conditions in the Study Area

The City's wastewater disposal system comprises approximately 600 miles of collector lines, 39 pumping stations, and 80 miles of trunk lines, with pipe diameters ranging from 6 to 60 inches (Turnstone Consulting 2006). The primary treatment plant provides screening and grit removal of the wastewater processes' biosolids and transfers pretreated wastewater along 6.5 miles of 60-inch pipes to the secondary treatment facility. The 4,600-acre secondary treatment facility includes three

140-foot-diameter fixed film reactors, a 100-acre recirculating channel, 430 acres of treatment ponds, 600 acres of treated water storage ponds, and 2,500 acres of irrigated pasture. Most of the treated wastewater is sent to the irrigated pasture, and a limited amount is discharged to the San Joaquin River under permit from the Central Valley Regional Water Quality Control Board (RWQCB). The City does not discharge treated effluent to farmland or into the San Joaquin River during periods when conditions for discharge are not favorable. In such periods, the treated effluent is stored in the City's storage pond system.

The current capacity of the City's waste treatment system is 62 million gallons per day (mgd) (including capacity for 33 mgd of cannery wastewater). In 2005, average annual domestic wastewater flow (exclusive of cannery segregated flow) was 25.8 mgd. During the 2005 dry season, the sewer system received an average of approximately 26.3 mgd of domestic wastewater, with a peak of 38.7 mgd. The peak wet weather domestic wastewater flow was approximately 71.7 mgd (Carollo Engineers 2007a).

The City creates additional seasonal treatment capacity at the primary treatment plant by sending cannery wastewater directly to the secondary treatment plant. Cannery waste is disposed of by irrigation onto the City's secondary treatment facility's fields. Cannery waste consists of wash water containing organic vegetable material. The cannery segregation project began operation in July 1999. In 2005, the total volume of cannery segregated wastewater received by the City's sewer system was 1,460 million gallons, which was discharged over an 82-day period extending from July through September. During this period, the sewer system received average daily segregated cannery flow of approximately 16.8 mgd. The equivalent average annual segregated cannery wastewater flow (seasonal volume distributed over 12 months) was 3.6 mgd (Carollo Engineers 2007a). Because the equivalent annual average cannery segregated flow historically has been on the order of approximately 4 mgd, it is assumed these flow levels will not increase substantially relative to existing conditions from the present period through the projected buildout horizon of the UAGP unless additional information is provided. Thus, impacts related to cannery segregated flow are considered less than significant and will not be discussed further in this master environmental impact report (Master EIR).

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Sewer Service policies are designated as SS-*X*, where *X* is the discrete number).

a. Federal and State Regulations

- SS-1: Wastewater disposal is regulated under the Clean Water Act (33 U.S. Code Section 121 et seq.) and the state Porter-Cologne Water Quality Control Act (California Water

Code Section 13000 et seq.). The Central Valley RWQCB implements these acts by administering the National Pollutant Discharge Elimination System (NPDES) and by the issuing of waste discharge requirements (WDRs), respectively. The Central Valley RWQCB is also responsible for ensuring that operation of City wastewater treatment facilities meets the requirements of those permits. The City's NPDES permit allows treated effluent to be used for irrigation during proper soil and weather conditions and to be discharged into the San Joaquin River from October 1 through May 31 when river flows meet prescribed standards. The NPDES permit requirements of the Central Valley RWQCB ensure that discharges from the sewage treatment plants do not affect water quality adversely. (California Water Code, Division 7.)

- SS-2:** Title 22 of the California Code of Regulations (CCR) regulates the production of reclaimed water in California for three main types of recycled water uses: landscape irrigation, recreational impoundments, and industrial uses. The California Department of Public Health (CDPH) is responsible for reviewing proposed water recycling projects and for providing comments and recommendations to the Central Valley RWQCB, which issues water recycling requirements through the waste discharge permit process. Title 22 of the CCR, Division 4, Chapter 3, establishes "Water Recycling Criteria," which include criteria for water quality, treatment process requirements, and treatment reliability criteria for reclamation operations. Title 22 of the CCR also defines requirements for sampling and analysis of reclaimed water and requires specific design requirements for facilities. Under 22 CCR, the proposed use of recycled water for landscape irrigation would fall under the guidelines for "landscape irrigation with high public contact." To be used as a supply source for this designation, the recycled water must meet the process requirements for "disinfected tertiary recycled water," which is defined in 22 CCR, Division 4, Chapter 3, Section 60301.230, as recycled water that has been oxidized, coagulated, clarified, filtered, and disinfected.

b. Stanislaus Local Agency Formation Commission Policies

- SS-3:** The Stanislaus Local Agency Formation Commission (LAFCo) oversees the annexation of unincorporated lands to the City and the efficient provision of services to those lands. LAFCo policies discourage urban sprawl (i.e., irregular and disorganized growth occurring without apparent design or plan) and promote an efficient system of service delivery (California Government Code Section 56425). Before an area is annexed, the applicant is required to show that the area will have adequate sanitary sewer service.

To coordinate services provided by local government agencies, the LAFCo establishes a sphere of influence delineating the area to be served by each agency. For the City, the criteria for its sphere of influence include the capacity to provide public facilities such as sewer service. By designating a sphere of influence for each service provider, the LAFCo prevents overlapping jurisdictions and duplicated services.

When determining spheres of influence for cities and special districts, the LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require the consideration of several factors such as: growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to

provide services; status of, and opportunities for, share facilities; and accountability for community service needs, including governmental structure and operational efficiencies.

c. City of Modesto Policies

- SS-4:** Under its NPDES permit, the City is required to develop, administer, implement, and enforce a comprehensive stormwater management program to reduce pollutants carried in urban runoff to the maximum extent practicable. The City's adopted guidance manual specifically controls post-construction urban runoff pollutants from newly developed and redeveloped areas. The *Erosion and Sediment Control for Construction Activities* manual describes the best management practices (BMPs) that will be required as source control and treatment control measures for commercial/industrial and multifamily residential sources.

In addition, the UAGP provides the following policies related to wastewater disposal services.

(1) Baseline Developed Area and Redevelopment Area

- SS-5:** To protect public health and the environment, the City's wastewater treatment facilities will conform to standards for wastewater and biosolids treatment and disposal, as by the Central Valley Regional Water Quality Control Board, in compliance with the Federal Clean Water Act, the State Porter-Cologne Act, and their implementing regulations, current and future. (UAGP Policy V-D.3[a])
- SS-6:** The City shall support the near term expansion of the wastewater treatment and disposal capacity of the Jennings Road Secondary Treatment Plant, as well as other treatment improvements as required by future regulations. (UAGP Policy V-D.3[b])
- SS-7:** The City shall support both wastewater collection and treatment system improvements and associated costs needed to serve the City's existing and future customers. (UAGP Policy V-D.3[c])
- SS-8:** Wastewater facilities will be constructed, operated, maintained and replaced in a manner that will provide the best possible service to the public, as required by federal and state laws and regulations. In developing implementation plans, considerations shall be given to rehabilitation of essential existing facilities, expansion to meet current excess demand, and the timely expansion for future demand. (UAGP Policy V-D.3[d])
- SS-9:** If available, the City shall provide wastewater services within the sewer service agreement area. (UAGP Policy V-D.3[e])
- SS-10:** The City's wastewater system capacity will be allocated to existing and future residential, commercial, and industrial customers [within the City's sewer service area or by agreement]. Discharges from environmental cleanup sites may be issued conditional discharge permits subject to the availability of excess treatment capacity. In accordance with federal and state regulations, all discharges to the wastewater system may not, or may not threaten to, upset, interfere, or pass through the wastewater system. (UAGP Policy V-D.3[g])
- SS-11:** The City Engineer may require wastewater infrastructure master plans for the specific public infrastructure or when otherwise pertinent to provision of service at adopted

service levels for the specific plan areas or other projects depending on site issues and location. (UAGP Policy V-D.3[h])

- SS-12: Proposed lot splits are subject to review by the City's Public Works Director for adequate wastewater collection service. (UAGP Policy V-D.3[i])
- SS-13: Subject to the approval of the Stanislaus Local Agency Formation Commission, the City of Modesto will be the sole provider of wastewater services to the area within the City's Sphere of Influence and sewer service area. (UAGP Policy V-D.3[k])
- SS-14: Prior to annexation, the City must find that adequate wastewater treatment and disposal capacity can be provided for the proposed annexation. (UAGP Policy V-D.3[l])
- SS-15: The City will encourage the regional beneficial reuse of reclaimed water. The City is committed to development of a full reclamation program in the long term. The City will comply with Title 22 standards for use of reclaimed water and criteria contained in the California Department of Public Health (CDPH) "Purple Book". (UAGP Policy V-D.3[m])
- SS-16: The City shall strive to use land application of biosolids as the most environmentally beneficial reuse of this resource, rather than the disposal options of landfilling or incineration. (UAGP Policy V-D.3[n])
- SS-17: The City shall develop methods to discontinue the current practice of using the sanitary system to temporarily drain storm water runoff. (UAGP Policy V-D.3[o])
- SS-18: The City shall establish odor buffer zones around primary and secondary wastewater plants, thereby minimizing the likelihood of odors impacting new residential or commercial development. (UAGP Policy V-D.3[p])
- SS-19: The City shall utilize source control and demand management among its tools for accomplishing the most cost-effective wastewater management, protective of public health and the environment. (UAGP Policy V-D.3[q])
- SS-20: The City shall establish 10th percentile river flows as the baseline condition for design to minimize risks of exceeding Waste Discharge Requirements (WDR) and National Pollutant Discharge Elimination System (NPDES) permit requirements. (UAGP Policy V-D.3[r])
- SS-21: According to state law (Senate Bill 1087 of 2004), no provider of wastewater services may deny or condition the approval of an application for services, or reduce the amount of the services applied for, if the proposed development includes housing affordable to lower income households, except upon making specific findings in accordance with SB 1087. (UAGP Policy V-D.3[s])

(2) Planned Urbanizing Area

- SS-22: All of the Wastewater Policies for the Baseline Developed Area apply within the Planned Urbanizing Area. (UAGP Policy V-D.4[a])
- SS-23: The City of Modesto will require each new development project to be served with public sanitary sewers. Utilities located in private streets shall be part of the public sewerage system and shall be connected to a sewer lateral. (UAGP Policy V-D.4[b])
- SS-24: The City of Modesto will coordinate land development proposals with the expansion of wastewater facilities. (UAGP Policy V-D.4[c])
- SS-25: In general, maintenance of a five-year supply of available developable land served with urban infrastructure is desirable. (UAGP Policy II-C.1[a])

SS-26: Measure A, the Modesto Citizens Advisory Growth Management Act of 1979, requires the Modesto City Council to hold an advisory election before it approves, authorizes, or appropriates funds for the extension of any sewer trunk. For the purposes of Measure A, the word “extension” means the addition of sewer trunk capacity to permit expansion of urban development into the Planned Urbanizing Area of the UAGP so as to require amendment of the UAGP, but it shall not include any maintenance, repairs, renovation, or improvements in an existing sewer trunk solely for the purposes of safe, efficient, and effective operation thereof.

SS-27: This measure, passed on November 4, 1997, requires an advisory election be held among the citizens of Modesto prior to extending sewer improvements to new areas with five or more dwelling units, and does not apply to non-residential areas. The purpose is to allow the public to provide input into decisions concerning whether or not to allow urban expansion. Areas that have received support for expansion of development through Public Advisory Elections have not all been planned, developed, or annexed, but each area is expected to eventually annex to the City and be developed. The positive or negative result of a public advisory election is not binding upon the City Council, which may choose to either allow or prohibit growth in these areas.

In order to annex to the City of Modesto, properties subject to Measure M must be in the City’s Sphere of Influence, must have been evaluated in the biennial Urban Growth Review and received authorization from the City Council to be placed on the ballot to satisfy the Measure M requirement, and must then be authorized by City Council to begin the planning process. (UAGP Policy VIII-V)

SS-28: In 2007, the City approved a *Wastewater Master Plan* update and its related Master EIR. The 2007 *Wastewater Master Plan* is a long-term strategic plan to direct the improvement and expansion of the City’s wastewater collection, treatment, and disposal facilities and operation into the future. The goal of the *Wastewater Master Plan* is to accommodate wastewater service needs for the projected population growth and land uses described in the UAGP through 2030. The *Wastewater Master Plan* proposes the following major improvements to the City’s wastewater treatment system: improve the Sutter Avenue Primary Treatment Plant to expand its hydraulic capacity and solids treatment capacity and to provide protection for a 100-year flood event; re-line the primary effluent outfall (from Sutter Avenue to Jennings Road) to increase its hydraulic capacity and to improve reliability; expand and upgrade the Jennings Road Secondary Treatment Facility to increase domestic effluent disposal capacity and to comply with projected discharge requirements; and prepare scientific studies to verify appropriate biological oxygen demand (BOD) loadings and land application methodologies associated with segregated cannery process flows. The collection system improvements will include new facilities for development, rehabilitation, replacement, and reliability and capacity.

The main goals of the 2007 *Wastewater Master Plan* update are to:

- provide a long-range plan that is flexible in meeting current and future regulatory requirements for the collection system and treatment;
- develop a prioritized and phased implementation plan;
- develop a cost-effective plan that considers total life cycle costs as well as capital costs;
- correct hydraulic capacity deficiencies in the existing system (collection system goal);
- serve new customers in the Comprehensive Planning District (CPD) (collection system goal);

- rehabilitate existing concrete pipes (collection system goal); and
 - provide reliability to the existing collection system (collection system goal).
- (Carollo Engineers 2007a, 2007b.)

5. Regulatory Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area as they annex and develop. The policy reference numbers are listed; the full text of these policies is found above, under the heading *Existing Policies Applying to the Study Area*.

a. City Policies

The City provides the following policies:

1. Citywide—SS-4,
2. Baseline Developed Area and Redevelopment Area—SS-5 through SS-21, and
3. Planned Urbanizing Area—SS-22 through SS-28.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA has no specific thresholds for sewer services. Section 15063 of the State CEQA Guidelines provides that Appendix G of the State CEQA Guidelines can be used as a guide. It provides that a project may result in a significant effect if it would:

- a. exceed wastewater treatment requirements of the Central Valley RWQCB,
- b. require or result in the construction of new facilities or the expansion of existing facilities that would cause significant effects, or
- c. result in a finding that the wastewater treatment facilities do not have adequate capacity to serve the projected demand.

2. Thresholds of Significance Suggested by Other Analytical Methods

The Central Valley RWQCB would consider a project significant if it resulted in a violation of the WDRs or an NPDES permit issued by the RWQCB.

3. Thresholds of Significance Adopted by the City of Modesto

Based on the thresholds established by the Central Valley RWQCB and described above, the City of Modesto adopts the following standard.

Impacts from the effects of increased demand for sewer services will be significant if demand:

- a. exceeds the wastewater treatment requirements of the Central Valley RWQCB, including the NPDES;
- b. requires or results in the construction of new facilities or the expansion of existing facilities that would cause significant effects beyond those analyzed in the *Wastewater Master Plan* Master EIR; or
- c. exceeds the capacity of the City's wastewater treatment facilities.

4. Significant Direct Impacts

The sewer service area projections in the 2007 *Wastewater Master Plan* update are based on a May 4, 2006, memo prepared by the City that includes population estimates through 2030 (sphere-of-influence buildout). The memo projects the population of the sphere-of-influence buildout to be between approximately 334,000 and 357,000 people. This projected service area population is included in the growth projections of the 2007 UAGP Amendment and is used as a basis for determining impacts on Modesto's wastewater services and facilities in this Master EIR. Based on projected demand in the Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area under the UAGP, the *Wastewater Master Plan* estimates that average annual domestic wastewater flow in 2030 would be approximately 41.7 mgd. This increase in domestic wastewater demand represents an increase of approximately 62% over existing (2005) conditions. The growth provided for under the UAGP will require substantial additional sewage treatment capacity, plant improvements, sewer mains and collection lines, pump stations, and disposal capacity.

a. Compliance with Waste Discharge Requirements

The City's adopted 2007 *Wastewater Master Plan* update describes new and upgraded facilities needed to accommodate the increased flows over the next 23 years to meet future demand for sanitary sewer services. As City wastewater treatment facilities are expanded to meet the needs of the Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area, the City will obtain the necessary wastewater discharge and NPDES permits from the Central Valley RWQCB, as required under UAGP Policy V-D.3(a). Implementing the *Wastewater Master Plan* requirement of BMPs for post-construction activities, as well as the UAGP policy cited above, will avoid violation of WDRs. As a result, this impact would be less than significant.

b. Impacts From the Construction of New Wastewater Treatment Facilities

The impacts of expanding the City's sewer system to meet future needs in the Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area under the UAGP have been analyzed in the Master EIR certified for the *Wastewater Master Plan*. The *Wastewater*

Master Plan Master EIR identified the following significant impacts that can be mitigated: Excavation and construction activities would cause erosion or release chemicals that would degrade water quality; eliminating the cross-connections between the stormwater drainage system and the wastewater collection system could cause localized flooding; construction could cause substantial short-term increases in noise levels; and excavation for and installation of the wastewater system improvements could expose workers and the public to hazardous substances. Mitigation measures would include preparing a stormwater pollution prevention plan (SWPPP); designing new stormwater conveyance and treatment structures that would avoid exacerbating existing flooding problems; limiting construction hours to minimize noise impacts on sensitive receptors; equipping construction equipment with noise abatement devices; designing construction vehicle access routes to minimize impacts on sensitive receptors; locating stationary noise sources away from existing noise-sensitive land uses; determining the presence of groundwater or soil contamination by means of soil gas surveys, soils or groundwater sampling, and/or Phase I Environmental Site Assessments; preparing a site remediation plan and health and safety plan; and preparing a waste disposal and hazardous materials transportation plan.

The *Wastewater Master Plan* Master EIR concluded that construction of project facilities could damage the habitat of the valley elderberry longhorn beetle, burrowing owl, and Swainson's hawk, as well as certain regulated habitats under the California Department of Fish and Game and U.S. Army Corps of Engineers. Mitigation measures include conducting preconstruction surveys for sensitive species, coordinating with regulatory agencies and meeting appropriate permit requirements for regulated habitats, compensating for loss of nesting and foraging habitat of special-status species, transplanting elderberry plants, and avoiding sensitive habitats during construction.

The Master EIR found that the *Wastewater Master Plan* would result in the following significant impacts that cannot be mitigated: a permanent loss of Prime Farmland caused by the construction of the Phase IA tertiary treatment facilities at the Jennings Road Secondary Treatment Facility, an increase in pollutant loads from increased wastewater flows to the San Joaquin River, and an increase in criteria air pollutants resulting from construction activities.

The Master EIR for the *Wastewater Master Plan* is hereby incorporated by reference. Its mitigation measures have been adopted by the City and are being implemented by the City under the *Wastewater Master Plan*. The Master EIR for the *Wastewater Master Plan* identified impacts on agricultural land from the construction of project components (significant and unavoidable), degradation of water quality from excavation and construction activities (less than significant with mitigation), localized flooding (less than significant with mitigation), degradation of surface water quality (significant and unavoidable), San Joaquin River flow (less than significant with mitigation), valley elderberry longhorn beetle habitat (less than significant with mitigation), burrowing owl habitat (less than significant with mitigation), nesting raptors (less than significant with mitigation), resources and habitats of Dry Creek and the Tuolumne River (less than significant with mitigation), Swainson's hawk foraging habitat (less than significant with mitigation), Swainson's hawk breeding (less than significant with mitigation), riparian habitats (less than significant with mitigation), nesting and foraging habitat for Western pond turtles and a variety of birds (less than significant with mitigation), Sacramento splittail spawning habitat (less than significant with mitigation), traffic (significant and unavoidable), air quality (significant and unavoidable), noise (less than significant with mitigation), cumulative noise (significant and unavoidable), and workers and the public from contaminated soils (less than significant with mitigation).

c. Insufficient Capacity to Meet the Project's Projected Demand

The City has adopted the *Wastewater Master Plan* specifically to ensure that sewer capacity will match the level of growth projected by the UAGP. Development within the Baseline Developed Area and the Planned Urbanizing Area that is consistent with the UAGP will not have a significant effect on capacity.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of significant cumulative environmental impacts, of whether the project will make a cumulatively considerable contribution to any such impacts, and, if so, of mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may make a considerable contribution to a cumulative effect nonetheless.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

Because the City would provide sewer service within the Modesto planning area, the cumulative impacts on sewer service would be the same as the direct impacts.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

Implementing the UAGP will involve subsequent projects, such as development within the Planned Urbanizing Area, which could result in impacts on sewer services. These impacts will be addressed by federal and state regulations, the *Wastewater Master Plan*, and the comprehensive plans.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The existing and proposed policies described above under the heading *Existing Policies Applying to the Study Area* will mitigate future impacts relative to the provision of wastewater treatment.

Mitigation measures relative to expansion of the wastewater treatment plant and conveyance system have been implemented by the City under the *Wastewater Master Plan* and do not need to be

included as mitigation measures for the UAGP Master EIR. A list of these impacts and mitigation measures is attached as Appendix D. No new mitigation measures are required.

2. Measures Which Mitigate Cumulative Impacts

The City will have sufficient treatment capacity to meet future needs. Therefore, there is no cumulative impact to which the project would contribute.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Alternatives 1 and 2 would have essentially the same impacts as the proposed project.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the demand for sewer services as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City or any responsible agency identified in the Master EIR.
2. The policies described in Section A-4 above continue to be in force to reduce, avoid, or mitigate impacts.
3. The subsequent project is within the study area for cumulative impacts defined above, under the heading *Environmental Setting*.

**F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR
THIS TOPIC**

As authorized by PRC Section 21166, the analysis contained in this subchapter is current as long as the following circumstances have not changed.

1. The City is the lead agency for sewer services.
2. Land use intensity has not increased, thus requiring no revision to UAGP policies in order to maintain City sewer service.
3. New information does not indicate that there would be an additional significant effect on the environment.

Section 7

Loss of Sensitive Wildlife and Plant Habitat

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect sensitive wildlife and plant habitat. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for sensitive wildlife and plant habitat is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the UAGP and Tuolumne River Regional Park Master Plan (TRRP Master Plan). The study area for cumulative impacts on sensitive wildlife and plant habitat is the San Joaquin Valley, generally extending from the Delta in the north to the Tehachapi Mountains in the south, and between the coastal ranges foothills to the west and the Sierra Nevada foothills to the east.

3. Existing Physical Conditions in the Study Area

a. Vegetation and Wildlife Descriptions

The following vegetation and wildlife descriptions follow the California Department of Fish and Game's (DFG's) Wildlife Habitat Relationships classification system (Mayer and Laudenslayer 1988) and that of California Vegetation (Holland and Keil 1989). A habitat includes those ecological conditions that support an organism or biological population. Communities are naturally occurring assemblages of plants that are relatively consistent in physiognomy and species composition from one location to another. Plant communities and their associated wildlife indicate the presence of a suitable habitat. Ruderal ("weedy"), landscaped, and agricultural plant assemblages are referred to as vegetation or cover types because they are human-induced and not naturally occurring.

Eight habitat types have been identified within Modesto's urban area as supporting various plant communities and wildlife. These include four natural habitats: valley foothill riparian, riverine, wetland, and grassland. The four human-modified habitats are pasture, cropland, orchard-vineyard, and urban habitats. Special-status species with potential to occur in these habitats within the Modesto planning area are listed in Table E-1 of Appendix E.

(1) Valley Foothill Riparian

Valley foothill riparian habitat is composed of the vegetation and wildlife areas next to rivers and streams. Riparian habitat in the Modesto area occurs along the Stanislaus and Tuolumne Rivers and along Dry Creek. Riparian areas are helpful in maintaining the stability of stream banks and the configuration of streams. Vegetation in this habitat is also beneficial to the quality of stream water since polluting nutrients are absorbed before reaching open water. Common streamside plant species include: willow, cottonwood, box elder, buttonbush, Oregon ash, wild grape, and California blackberry.

Stands of elderberry shrubs may be found in riparian vegetation along the Stanislaus and Tuolumne Rivers. Elderberry shrubs are the host plant for the federally listed (threatened) valley elderberry longhorn beetle (VELB). The understory includes annual grasses and forbs, and old stands are frequently overrun by wild grape. This habitat is a significant natural area known to occur within the general vicinity of Modesto and should be surveyed for when areas next to the riparian corridor are proposed for development.

The importance of riparian areas to wildlife is related primarily to vegetation structure and the presence of water. Riparian habitat provides abundant food, water, escape, nesting, and thermal cover for mammals, birds, amphibians, reptiles, and invertebrates, while also serving as migration and dispersal corridors for these animals (Stanley et al. 1991; Mayer and Laudenslayer 1988). Many invertebrates that are important food sources for other animals live entirely in or near riparian habitats. Amphibians are dependent on these habitats for breeding. Riparian areas provide important refuge areas and winter habitat for migratory bird species in the Pacific Flyway.

Special-status species associated with riparian habitats include:

- San Joaquin Valley woodrat,
- riparian brush rabbit,
- pallid bat,
- Townsend's big-eared bat,
- western yellow-billed cuckoo,
- white-tailed kite,
- Cooper's hawk,
- sharp-shinned hawk,
- Swainson's hawk,

- yellow-breasted chat,
- silvery legless lizard,
- southwestern pond turtle,
- California red-legged frog,
- foothill yellow-legged frog,
- valley elderberry longhorn beetle,
- delta button-celery, and
- Hartweg's golden sunburst.

Because riparian areas are considered to be of significant inherent value for wildlife, the DFG and the U.S. Fish and Wildlife Service (USFWS) believe it is necessary to provide mitigation for any net loss of riparian habitats resulting from development of habitat alteration. Figure V-7-1, Riparian and Vernal Pool Locations, delineates at a general plan scale the approximate extent of the riparian corridors containing the Valley Foothill riparian and riverine habitats within the planning area. The riparian corridor boundaries, which should be considered preliminary and subject to refinement as site-specific information becomes available, were determined on the basis of the mapped 100-year floodplain as adjusted by the presence of developed land uses and a review of aerial photographs.

(2) Riverine

Riverine habitat occurs in an association with many terrestrial habitats. Riparian habitats are found next to many rivers and streams. In the planning area, the open water zones of the Stanislaus and Tuolumne Rivers provide resting and escape cover for many species of waterfowl. Terns, bald eagles, osprey, and American peregrine falcon hunt in open water. Many species of insectivorous birds such as swallows, swifts, and flycatchers hawk their prey over water. Many species of bats also hunt insects over riverine habitats. Predators such as river otters and mink hunt in riverine habitat for fish, invertebrates, amphibians, and birds. Muskrat and beaver are common mammals found in this habitat.

King or Chinook salmon spawn between October and January east of the City of Riverbank, in the Stanislaus River. Historically, they also occurred in the Tuolumne River and Dry Creek (Brown and Moyle 1993). Another special-status species that potentially occurs in the Tuolumne River is the Sacramento splittail, a large endemic minnow. Splittails require slow-moving sections of rivers containing submerged aquatic or terrestrial vegetation for major portions of their life cycle (Moyle et al. 1989). Kern Brook lamprey is a state species of concern that occurs in the San Joaquin and Kern River systems. The lamprey is found in gravel-bottomed areas where it spawns and in muddy-bottomed areas where ammocoetes can burrow and feed (California Natural Diversity Database 2007). Riverine habitat provides unique cover, sources of food, breeding and spawning, yet cannot be separated from riparian habitat when evaluating for potential impacts.

(3) Fresh Emergent Wetland and Vernal Pool

Fresh emergent wetlands are transitional areas between terrestrial and aquatic systems that include marshes, seasonally flooded grasslands, and the fringes of ponds. Mayer and Laudenslayer (1988) refer to this habitat as fresh emergent wetlands that occur in association with terrestrial habitats or aquatic habitats, such as riverine. These sensitive areas occur next to streams, lakes, and as a result of blockage of normal water run-off channels. Wetlands provide a diverse array of plant and wildlife communities and are considered to be among the most productive wildlife habitats in California. Wetlands are important to amphibians, herons and egrets, waterfowl, and shorebirds. Special-status species associated with fresh emergent wetland include:

- white-tailed kite,
- bald eagle,
- northern harrier,
- greater sandhill crane,
- short-eared owl,
- Suisun song sparrow,
- tricolor blackbird,
- southwestern pond turtle,
- giant garter snake,
- legenere, and
- little mousetail.

Vernal pool is a sensitive wetland community that occurs in pastures, grasslands, and woodlands in Stanislaus County. Vernal pools are shallow, ephemeral bodies of water that occupy depressions in grasslands, pastures, and woodlands (Holland and Kiel 1989). These areas fill with water during winter rains and subsequently dry up during the spring and early summer. A specialized group of species have evolved that occupy the pools and are endemic to California. Many of these species have adapted two morphologies, one to survive while the pools are flooded and another to reproduce once the pools have dried. Special-status species that occur in vernal pools in the region include:

- vernal pool fairy shrimp,
- vernal pool tadpole shrimp,
- conservancy fairy shrimp,
- California tiger salamander,
- western spadefoot,
- alkali milk-vetch,
- crownscale,
- vernal pool saltscale,





CITY of MODESTO
GENERAL PLAN PROGRAM

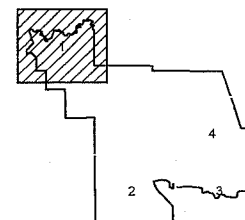
Figure V-7-1
Sheet 1 of 4

RIPARIAN AND
VERNAL POOL LOCATIONS

LEGEND

-  Potential Biological Resource Study Area (Riparian Habitat)
-  Project Area Boundary

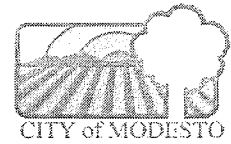
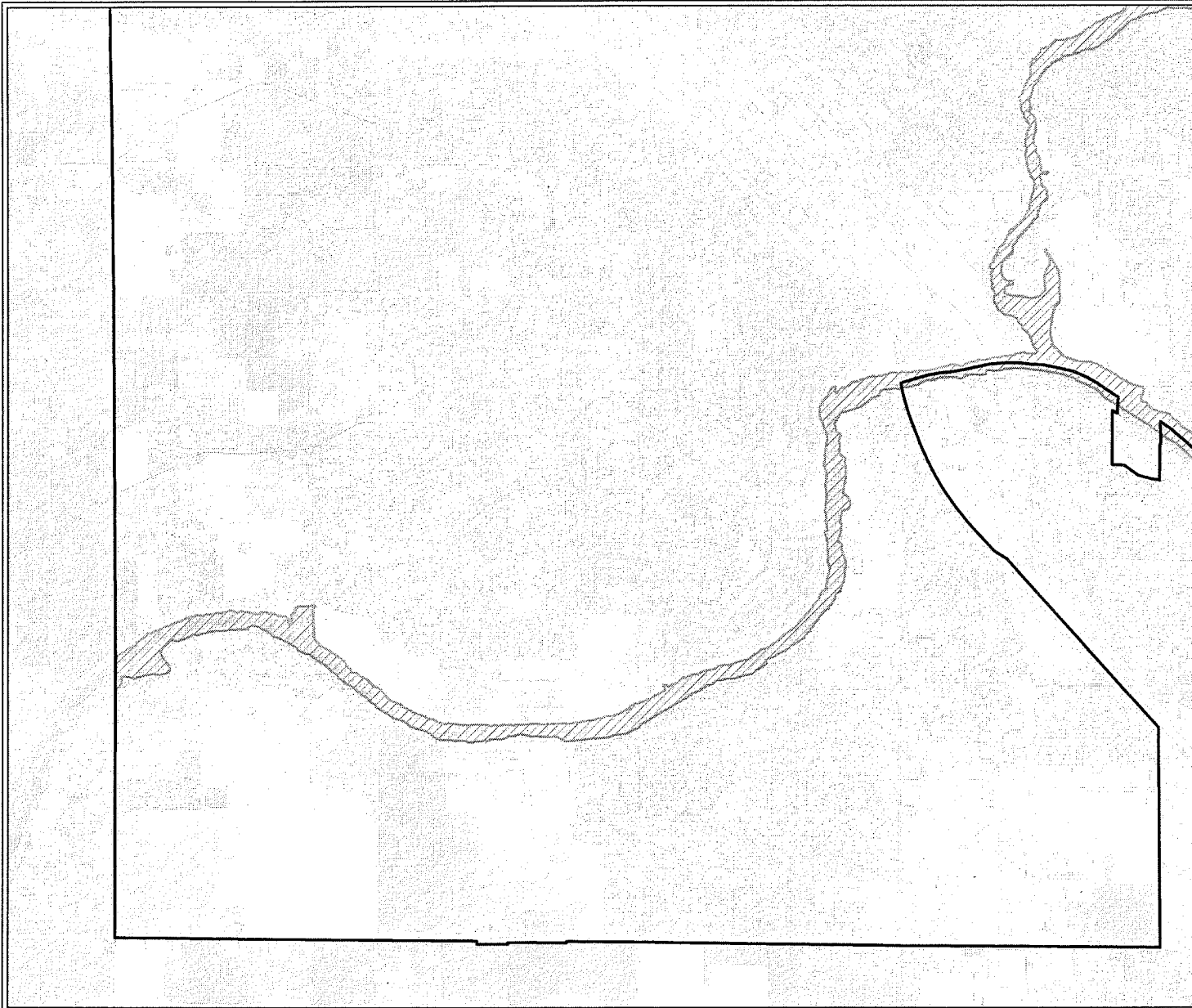
Data Source: Jones & Stokes 2007
Basemap: NAIP 2005



2,000 1,000 0 2,000
Feet

1:24,000







GENERAL PLAN PROGRAM

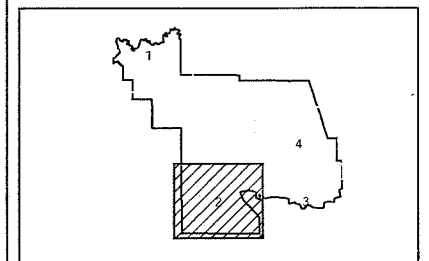
Figure V-7-1
Sheet 2 of 4

RIPARIAN AND VERNAL POOL LOCATIONS

LEGEND

-  Potential Biological Resource Study Area (Riparian Habitat)
-  Project Area Boundary

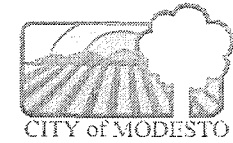
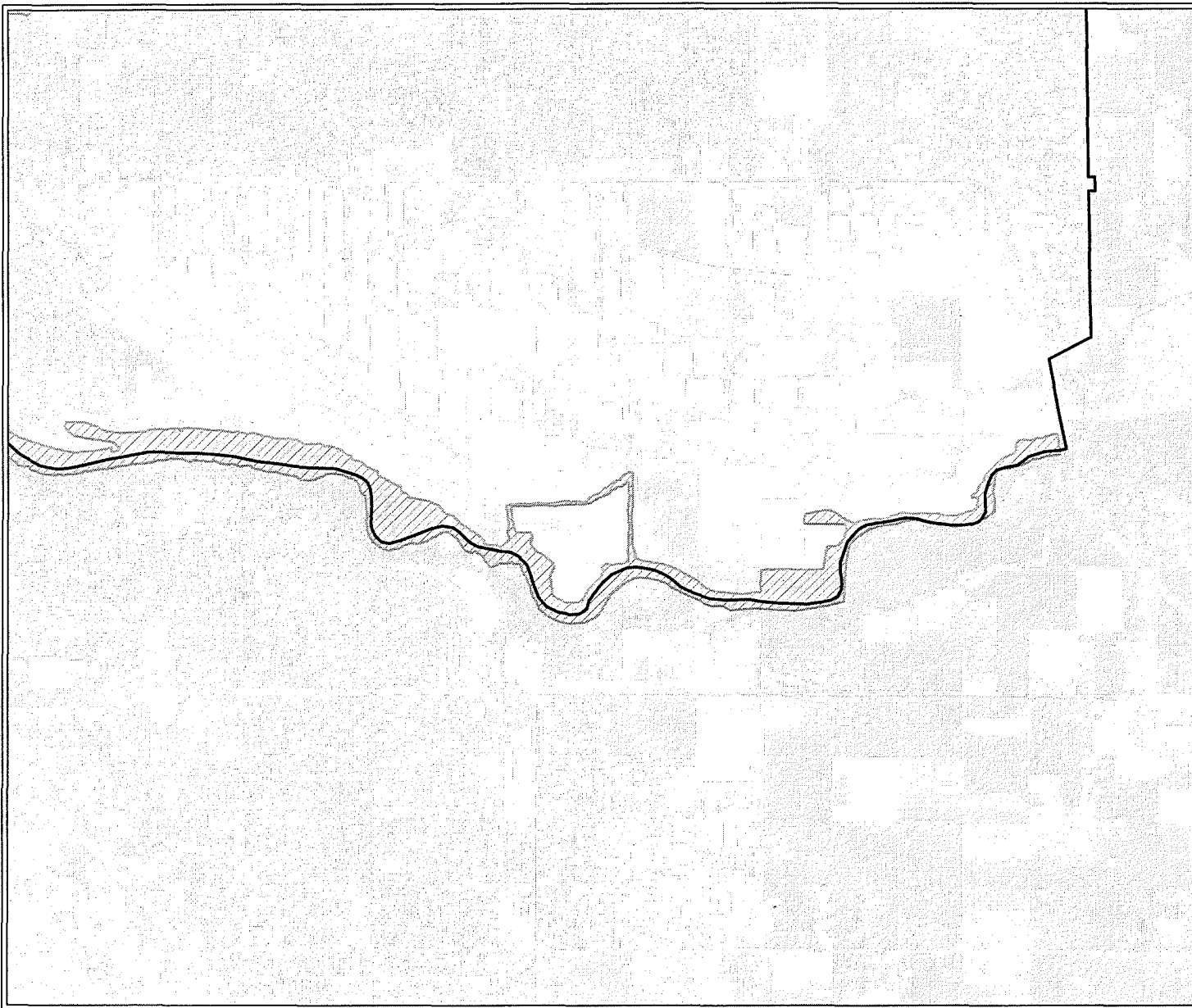
Data Source: Jones & Stokes 2007
Base Map: NADP 2005



2,000 1,000 0 2,000
Feet

1:24,000







GENERAL PLAN PROGRAM

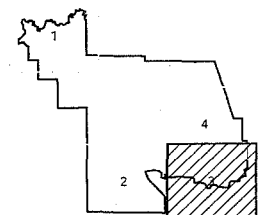
Figure V-7-1
Sheet 3 of 4

RIPARIAN AND VERNAL POOL LOCATIONS

LEGEND

-  Potential Biological Resource Study Area (Riparian Habitat)
-  Project Area Boundary

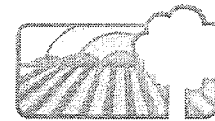
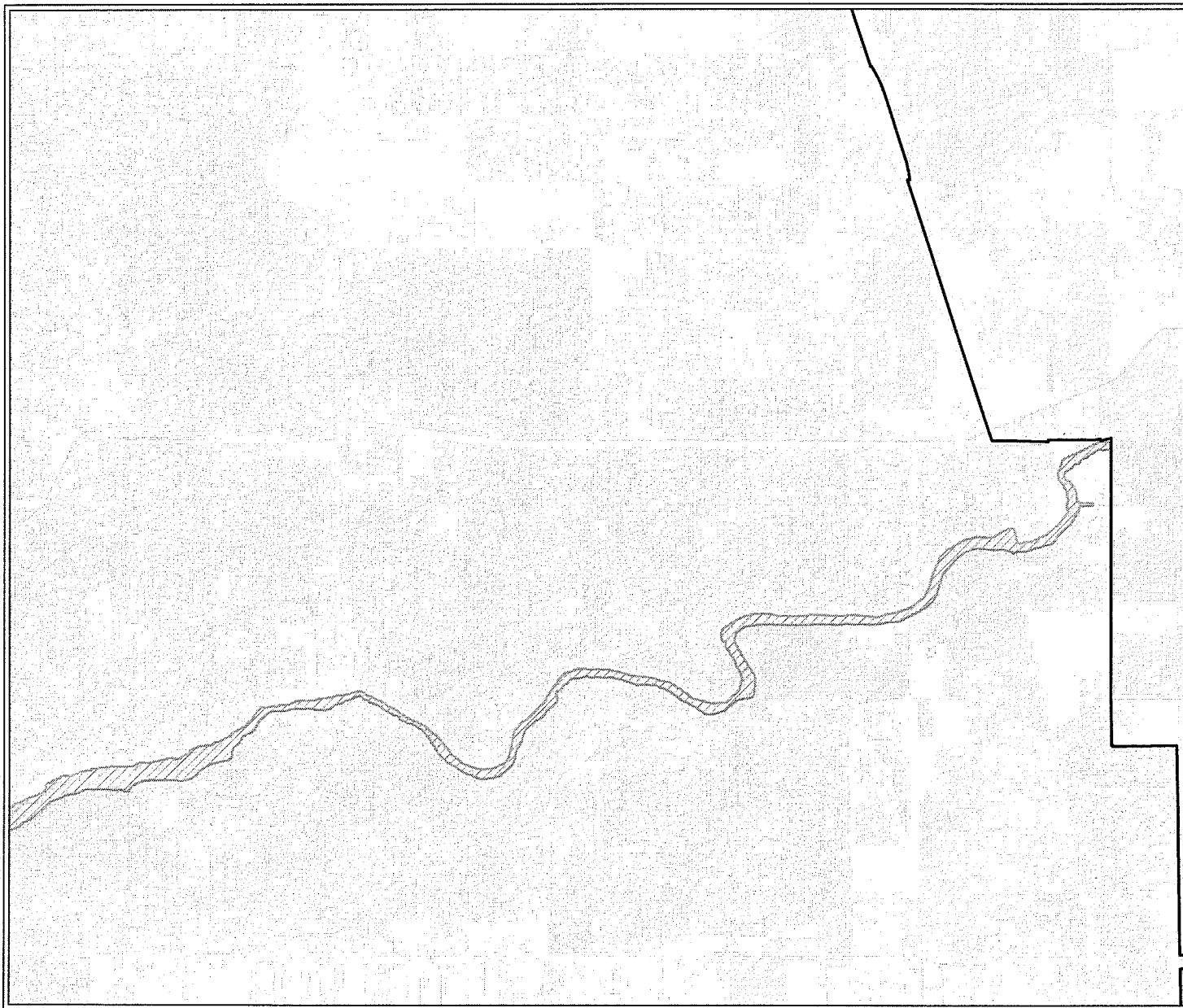
Data Source: Jones & Stokes 2007
Base Map: NAIP 2005



2,000 1,000 0 2,000
Feet

1:24,000







CITY of MODESTO
GENERAL PLAN PROGRAM

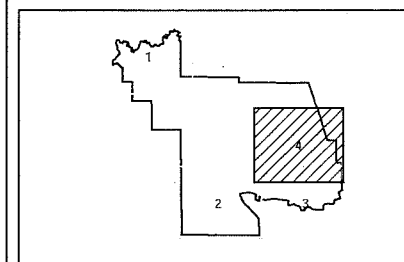
Figure V-7-1
Sheet 4 of 4

RIPARIAN AND
VERNAL POOL LOCATIONS

LEGEND

-  Potential Biological Resource Study Area (Riparian Habitat)
-  Project Area Boundary

Data Source: Jones & Stokes 2007
Basemap: NAD 2005



2,000 1,000 0 2,000
Feet

1:24,000



- succulent owl's clover,
- Hoover's spurge,
- dwarf downingia,
- delta button-celery,
- spiny-sepaled button-celery,
- legenere,
- Merced monardella,
- little mousetail,
- Colusa grass,
- California adder's-tongue,
- San Joaquin Valley Orcutt grass,
- hairy Orcutt grass,
- delta woolly-marbles, and
- Greene's tuctoria.

Much of the area formerly occupied by vernal pools has been converted to agricultural uses. Urbanization has also destroyed many vernal pools and threatens still more (Holland and Kiel 1989). Potential habitat for vernal pools exists east (particularly east of Santa Fe Avenue) and north of Modesto within the Planned Urbanizing Area (Figure V-7-1). In addition, vernal pool fairy shrimp occur in the ditches along the railroad tracks near the Amtrak station site between Held Drive and Santa Fe Avenue. (Environmental Sciences Associates 1996.)

(4) Grassland

Mayer and Laudenslayer (1988) divide grassland habitat into either perennial or annual grasslands. Grassland habitat is made up of a mixture of annual and perennial grasses, herbs, and wildflowers. For the most part, however, grassland plant communities are dominated by non-native annual grasses with small pockets of native perennial bunch grasses. Native bunch grasses are not classified as threatened or endangered, but their populations have declined greatly in the San Joaquin Valley with the loss of the large herds of grazing animals such as tule elk and pronghorn, species with which they co-evolved (Edwards 1991). Grasslands can also occur on alkaline soils and support annual grasses and alkaline-tolerant species such as saltbush, alkali weed, saltgrass, gum plant, and poverty weed.

Existing grasslands are associated with native oak savannahs. These savannah/grasslands provide food and cover for shrews, rodents, rabbits, deer, smaller migratory and resident birds, and reptiles. In turn, many of these wildlife species are food sources for snakes, raptors, and carnivores common to grassland communities. One of the primary impacts on grassland communities has been the practice of

continuous unplanned grazing that results in the overgrazing of plants and ultimately their decline and loss.

Special-status species that may occur in grasslands include:

- San Joaquin kit fox,
- American badger,
- ferruginous hawk,
- white-tailed kite,
- northern harrier,
- golden eagle,
- Swainson's hawk,
- greater sandhill crane,
- burrowing owl,
- short-eared owl,
- loggerhead shrike,
- California tiger salamander,
- western spadefoot,
- heartscale,
- crownscale,
- brittlescale,
- lesser saltscale,
- big tarplant,
- California jewel-flower,
- Lemmon's jewel-flower,
- beaked clarkia,
- Hoover's cryptantha,
- recurved larkspur,
- round-leaved filaree,
- diamond-petaled California poppy,
- red-flowered lotus,
- showy madia,
- Merced monardella,
- San Joaquin woollythreads, and
- Hartweg's golden sunburst.

(5) Pasture

Pastures often occur in association with agricultural habitats and may be found next to riparian and grassland habitats. The vegetation is a mix of perennial grasses and legumes that provide 100 percent canopy closure. The vegetation mix varies according to management practices such as seed mixture, fertilization, soil type, irrigation, weed control, the type of livestock, stocking rates, and grazing duration. Pastures are used by a variety of wildlife. Ground-nesting birds such as waterfowl and pheasants nest in pastures if adequate vegetation is present at the onset of the nesting season. Some of the highest pheasant counts have been recorded in irrigated pastures in Stanislaus County (Mayer and Laudenslayer 1988). Flood irrigation of pastures provides feeding and roosting sites for many wetland-associated birds such as shorebirds, wading birds, waterfowl, and raptors. Deer may graze pastures provided there is adequate cover next to the pastures. Special-status species associated with pasture include greater sandhill cranes, which use irrigated pastures for foraging, and western burrowing owls, which are known to nest in pasturelands where adequate California ground squirrel burrows exist. Pastures also provide foraging habitat for golden eagles, Swainson's hawks, and white-tailed kites.

(6) Cropland

Croplands occur in association with orchard-vineyard, pasture, grassland, and riparian habitat types. Croplands are characterized by the crop cycles typical of California. Most crops tend to be annuals and are managed in a rotation system. Croplands have been established on the state's most fertile soils, which historically supported an abundance of wildlife. Croplands have greatly reduced the wildlife richness and diversity in the state. However, many species of rodents and birds have adapted to agriculture and are considered pests to crops. Wildlife such as waterfowl and sandhill cranes that use waste grains after harvest are not considered pests or "problem wildlife." Bats, which prey primarily on insects, and raptors that feed on rodents are beneficial to croplands. Crop patterns and cultural practices that include clean farming, double cropping, and chemical control can be detrimental to wildlife (Robinson 1990; Mayer and Laudenslayer 1988).

Special-status species that may use croplands include Swainson's hawk, white-tailed kite, short-eared owl, and greater sandhill crane.

(7) Orchard-Vineyard

Orchard-vineyard habitats are generally associated with other agricultural types previously mentioned. They are frequently associated with riparian areas and grasslands. These areas have been planted on deep fertile soils that once supported diverse natural habitats. Like croplands, orchards and vineyards support some species of birds and mammals that have adapted to agriculture. Deer and rabbits may browse on the trees or vines, and squirrels and numerous birds feed on fruit and nuts. Common pests that feed on almonds and walnuts are the common flicker, scrub jay, American crow, Brewer's blackbird, house finch, and the California ground squirrel. Mourning

doves use orchards for cover and nesting sites. Evergreen orchards provide refuge for wildlife during inclement weather or act as shade during scorching San Joaquin Valley summer days. Water used for irrigation can also be utilized by various wildlife species. In western Stanislaus County, the San Joaquin kit fox, a federally listed species, is known to use orchards for den sites.

(8) Urban Area

Urban areas include a variety of plants that are relatively static because of maintenance. Extensive planting of exotic and non-native vegetation in urban areas can reduce the diversity of wildlife species within a region. Three urban categories relevant to wildlife are distinguished by Mayer and Laudenslayer (1988): downtown, urban residential, and suburbia. The downtown is usually at the center followed by concentric zones of urban residential and suburbs. There tends to be a progression outward of decreasing development and increasing vegetative cover. In the downtown area, biodiversity tends to be low, with house mice, rats, rock doves, house sparrows, and starlings composing most of the species. The urban residential zone is characterized by a more varied mosaic of vegetation, providing habitat for jays, mockingbirds, house finch, sparrows, hummingbirds, raccoons, opossum, and striped skunks. Suburban areas with mature vegetation closely approximate a somewhat natural environment and a proportionately greater number of native species occur. Various species of small passerine birds occur in this area along with California quail, deer, rabbits, striped skunk, coyote, gopher snake, and western fence lizard. Burrowing owls, a special-status species, may utilize open areas that have suitable burrows in the Modesto urban area.

b. Special-Status Species

The federal Endangered Species Act (ESA) and California Endangered Species Act (CESA) protect plant and animal species that have become threatened with or endangered by extinction. These regulations are discussed below in detail in Section A-4 below, *Existing Regulatory Policies Applying to the Study Area*. The following discussion identifies those special-status species with potential to occur in the UAGP planning area (see Appendix E).

Federal special-status species include those that are legally protected under the ESA or other regulations and species that are considered sufficiently rare by the scientific community to qualify for listing. Special-status species include the following categories.

1. Species listed or proposed for listing as threatened or endangered under ESA (50 Code of Federal Regulations [CFR] 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the FR [proposed species]).
2. Species that are candidates for possible future listing as threatened or endangered under ESA (71 FR 53755, September 12, 2006).

The following special-status species occur in Stanislaus County, but either have not been recorded in the California Natural Diversity Database (CNDDB) or have no suitable habitat within Modesto's planning area (California Natural Diversity Database 2007). Accordingly, the following species will not be addressed further:

- San Joaquin kit fox,
- greater western mastiff bat,
- Suisun song sparrow,
- California red-legged frog,
- foothill yellow-legged frog,
- Kern brook lamprey,
- conservancy fairy shrimp,
- Mt. Hamilton harebell,
- Mt. Hamilton thistle,
- small-flowered morning glory
- Mt. Hamilton coreopsis,
- talus fritillary, and
- Mt. Diablo phacelia.

The federal Migratory Bird Treaty Act protects migratory birds and their nests. The Bald and Golden Eagle Protection Act protects bald eagles and golden eagles, except under certain specified conditions, from the taking, possession, transportation, export or import, barter, or offer to sell, purchase, or barter a bald or golden eagle, alive or dead, of any part, nest, or eagle egg.

As described above, several special-status species known to Stanislaus County occur in habitat types identified in the planning area. Special-status species that potentially occur in habitats of the Modesto urban area are discussed below. Species discussed herein were determined by consultation with appropriate agencies, information provided by the Habitat Conservation division of DFG from the CNDDDB (2007), and review of the California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Vascular Plants of California* (California Native Plant Society 2007). Their decline can be attributed to habitat loss and degradation through agriculture and urban development, unplanned continuous grazing, and other human-induced actions.

(1) Special-Status Plants

A total of 32 special-status plant species were identified as having potential to occur within the UAGP planning area (Table E-1 in Appendix E). These species are included in the discussions above regarding vegetation communities in the planning area. Big tarplant, which occurs in grassland habitat, is the only species recorded in the CNDDDB as occurring within 2 miles of the UAGP boundary (California Natural Diversity Data Base 2007). This occurrence is documented near Salida but was found in the late 1800s, and the exact location is unknown. Seven additional species are recorded within 4 to 5 miles of the boundary, including lesser saltscare, beaked clarkia, delta button-celery, Colusa grass, San Joaquin Valley orcutt grass, and Greene's tuctoria. These species are associated with grassland or vernal pool habitats. The potential for occurrence of these eight species in the UAGP planning area is moderate to high, but they would be more likely to occur within habitats that are minimally disturbed than

those that are routinely maintained or intensively used for agriculture. While several of these special-status species are not federally or state listed, they are considered rare, threatened, or endangered in California by the CNPS.

(2) Special-Status Wildlife Species

(a) Wildlife Species of Special Concern

Several California species of special concern are known to occur in Stanislaus County and adjacent to Modesto (see Appendix E). While species in this category have suffered declines in breeding populations, they have no special legal status. However, it is in the best interest of any proposed development, as well as the species, to afford it the same protection as legally protected species.

1. Western Spadefoot

The western spadefoot is a state species of special concern. This species prefers areas of open vegetation where the soil is sandy or gravelly. Often occurring in washes, floodplains of rivers, playas, and alkali flats, western spadefoot also occur in the foothills and mountains. They breed in quiet streams, stock ponds, vernal pools, and other seasonal/permanent wetlands (Stebbins 2003). Known records for this species occur in western and eastern Stanislaus County (U.S. Fish and Wildlife Service 2005) and may occur in vernal pool areas in and adjacent to Modesto.

2. Western Pond Turtle

Western pond turtle is an aquatic turtle that is found in ponds, rivers, streams, and irrigation ditches having a rocky or muddy bottom with a variety of aquatic vegetation. The turtles bask on logs, cattail mats, and mudbanks (Stebbins 2003). Nesting sites are located in upland areas and are typically located on unshaded slopes of canals, creeks, or rivers. The distance of the nests are often determined by the availability of suitable nesting habitat adjacent to aquatic habitat (Jennings and Hayes 1994). Riparian, riverine, and fresh emergent wetlands in Stanislaus County are suitable habitat for pond turtles.

3. California Horned Lizard

The California horned lizard is designated as a California species of special concern. This species occurs throughout the Central Valley and Coast Range from Shasta County south to Los Angeles, Ventura, and Santa Barbara Counties. California horned lizards occur in a variety of habitats, including clearings in riparian woodlands, chamise chaparral, and grasslands with loose, friable soils (Jennings and Hayes 1994).

4. Silvery Legless Lizard

The California legless lizard (*Anniella pulchra*) is designated as a California species of special concern. The California legless lizard is a near-endemic to California (Jennings and Hayes 1994). The distribution of the California legless lizard includes the Coast Range from Contra Costa County south to the Mexican border, the floor of the San Joaquin Valley, the Tehachapi Mountains, and scattered desert slope locations in the Antelope Valley at the western edge of the Mojave Desert (Zeiner et al. 1988; Jennings and Hayes 1994). Suitable habitat includes areas with sandy or loose loamy soils. The lizard is often found under or in close proximity to surface objects such as logs, rocks, and old boards. Rocky soils or areas disturbed by agriculture, sand mining, or other human uses apparently lack legless lizards. Soil moisture is essential for legless lizards. They prefer substrates with higher moisture content (Jennings and Hayes 1994). Riparian habitats near Modesto are potentially suitable for this species.

5. White-Tailed Kite

White-tailed kite is a fully protected species in California. It is a state resident species that shifts about locally and seasonally in accordance with food supply (Grinnell and Miller 1944). It feeds primarily on small diurnal mammals, specifically the California meadow vole (Stendell and Myers 1973; Warner and Rudd 1975). These rodents are found primarily in open pastures, grasslands, meadows, and marshes. White-tailed kites hunt from a hovering position over these open areas and perch in adjacent trees or on fence posts. Isolated dense-topped trees are used for nesting (Grinnell and Miller 1944).

6. Northern Harrier

The northern harrier is a medium-sized hawk raptor of upland grasslands and fresh- and saltwater marshes. In California, northern harriers are a permanent resident of the northeastern plateau, coastal areas, and Central Valley (MacWhirter and Bildstein 1996). Northern harriers breed in California in the Central Valley and Sierra Nevada (Zeiner et al. 1990).

Northern harriers frequent meadows, grasslands, desert sinks, open rangelands, and fresh- and saltwater emergent wetlands; they are seldom found associated with wooded habitats. Harriers feed mostly on voles and other small mammals, birds, frogs, small reptiles, crustaceans, insects, and rarely on fish (Zeiner et al. 1990). Harriers mostly nest in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or sagebrush flats several miles from water (MacWhirter and Bildstein 1996). The nest is built of a large mound of sticks on wet areas and a smaller cup of grasses on dry sites.

7. Cooper's Hawk

Cooper's hawks are designated as California species of special concern. Cooper's hawks generally nest in coniferous forests or in deciduous riparian forests near streams (California Department of Fish and Game 2005). Although Cooper's hawks may use the same nest in successive years, they generally build a new nest in the same area every year. The species is tolerant to habitat fragmentation and human disturbance and will nest in suburban and urban areas (Rosenfield and Bielefeldt 1993). The breeding season extends from March through August, with the peak activity being May through July. Cooper's hawks prey on small to medium-sized birds, such as rock doves (*Columbia livia*), jays (*Cyanocitta stelleri*), American robins (*Turdus migratorius*), European starlings (*Sturnus vulgaris*), and northern flicker (*Colaptes auratus*). Mammalian prey include gray squirrels (*Sciurus carolinensis*), California ground squirrels (*Ammospermophilus californicus*), deer mice (*Peromyscus maniculatus*), and bats (Zeiner et al. 1900).

8. Sharp-Shinned Hawk

Sharp-shinned hawk is designated as a California species of special concern. This species is a permanent resident in the Sierra Nevada, Cascade and Klamath Ranges, and north Coast Range at mid elevations and along the coast in Marin, San Francisco, San Mateo, Santa Cruz, and Monterey Counties. It winters over the rest of the state except at very high elevations. Favored habitats include woodland edges and riparian habitat, but sharp-shinned hawks may hunt in orchards. Habitat destruction, pesticides, and human disturbance at nest sites have contributed to the decline of these species (Remsen 1978).

9. Golden Eagle

Golden eagle is a fully protected species in California. It is a year-round resident species that typically inhabits rolling foothill or coastal terrain where open grassland supports prey species (ground squirrels, jack rabbits, etc.). Habitat destruction, shooting, and human disturbance at nest sites are major threats to this species (Remsen 1978). The golden eagle could be expected to occur on at least an occasional basis in grassland habitat around the City.

10. Burrowing Owl

Burrowing owls are designated as a California species of special concern. Burrowing owls prefer open, dry, short grassland habitats with few trees and are often associated with burrowing mammals such as California ground squirrels. They occupy burrows, typically abandoned by ground squirrels or other burrowing mammals, but may also use artificial burrows such as abandoned pipes, culverts, and debris piles (California Department of Fish and Game 1995; Haug et al. 1993). Prey includes arthropods, amphibians, small reptiles, and small mammals (Haug et al. 1993).

Burrowing owls were formerly a common permanent resident throughout much of California, but population declines were noticeable by the 1940s and have continued to the present. Farming has taken a major toll on western burrowing owl populations and their habitat by destroying nesting burrows and exposing breeders and their young to the toxic effects of pesticides (Haug et al. 1993).

This small owl is known to occur east of the junction of the Tuolumne and San Joaquin Rivers.

11. Short-Eared Owl

The short-eared owl is designated as a California species of special concern. This species once bred locally throughout California where suitable habitat was available. This species is not known to nest anymore in the San Joaquin Valley (Remsen 1978). This species is common in winter in marsh and grassland habitat. Destruction of these areas and shooting have reduced the population of the short-eared owls in the San Joaquin Valley and throughout its historic range in California (Remsen 1978).

12. Yellow-Breasted Chat

Yellow-breasted chat is designated as a state species of special concern. This species is a local breeder in the San Joaquin Valley and inhabits riparian woodlands (Remsen 1978). Habitat destruction and parasitism of nests by cowbirds are thought to be factors in the decline of the chat (Remsen 1978).

13. Loggerhead Shrike

The loggerhead shrike is designated as a California species of special concern. Loggerhead shrikes are a widespread breeding species in North America, occurring from the southern Canadian provinces south across most of the United States and into Mexico (Yosef 1996). In California, loggerhead shrikes occur in open habitats with scattered shrubs, trees, posts, fences, utility lines, and other perches. Habitats include valley foothill forests, pinyon-juniper, desert riparian, and Joshua tree habitats (California Department of Fish and Game 2005). Loggerhead shrikes are adaptable to urban environments as long as preferred habitat characteristics and abundant prey supplies are present (Yosef 1996).

14. Tricolored Blackbird

The tricolored blackbird is designated as a state species of special concern. A state resident, the tricolored blackbird is partly migratory within the Sacramento-San Joaquin drainage system and breeds in the San Joaquin Valley (Grinnel and Miller 1944; Beedy 1989). Nesting habitat is in the vicinity of fresh water, primarily marshy areas. Important sites for nesting colonies are heavy growths of cattails and tules. Tricolored blackbirds also

nest in other vegetation such as thistles, willows, blackberries, mustard, nettles, salt cedar, giant cane, and wild rose (Beedy 1989). Flooded lands, grassy fields, and margins of ponds are typical foraging grounds (Grinnel and Miller 1944).

15. Pacific Western Big-Eared Bat

Pacific western big-eared bats (also known as Townsend's western big-eared bat) are designated as a state species of special concern. These bats live in a variety of communities throughout California, including broadleaf forests, oak and conifer woodlands, arid grasslands, and high elevation forests. Roost sites for this big-eared bat include limestone caves, lava tubes, mine tunnels, bridges, buildings, and other human-made structures (Williams 1986; Pierson 1988). Roost sites are known to occur in eastern Stanislaus County.

16. Pallid Bat

Pallid bats are designated as a California species of special concern. This species is found in open lowland areas such as grasslands. This bat moves about locally on a seasonal basis, but is not migratory (Jameson and Peeters 1988). During the day, pallid bats roost in buildings, crevices, caves, mines, and hollow trees (Whitaker 1980). The pallid bat has declined due to destruction of maternity roosts. These bats could be expected to occur within the planning area.

17. American Badger

The American badger is designated as a California species of special concern. The species is found throughout the state except in the north coast region. Badgers are most abundant in drier areas with friable soils. Other fossorial animals often use burrows made by badgers. Badgers are carnivorous and prey upon fossorial rodents, especially ground squirrels and pocket gophers, as well as reptiles, insects, earthworms, eggs, and carrion (California Department of Fish and Game 2005). Because of the elusive and nocturnal nature of this species, it is not readily observed, and nocturnal spotlight surveys would be necessary to determine its presence.

(b) Listed Wildlife Species

1. Sacramento Splittail

The Sacramento splittail is federally listed as threatened. This species was once widely distributed in lakes and rivers throughout the Central Valley. These minnows currently are found in the Delta and other parts of the Sacramento-San Joaquin estuary (Moyle et al. 1989). Surveys in the San Joaquin Valley have reported observations in the San Joaquin River below the mouth of the Merced River and upstream of the confluence of the Tuolumne River (Brown and Moyle 1993). Splittails require slow-moving sections of rivers and sloughs containing vegetation for major portions of

their life cycle. The Stanislaus and Tuolumne Rivers are considered potential habitat for the splittail.

2. Valley Elderberry Longhorn Beetle

The VELB is federally listed as threatened. This is a cylindrical beetle that is less than an inch long; it feeds and lays its eggs on elderberry shrubs in riparian and woodland communities in the Central Valley and surrounding foothills up to 3,000 feet in elevation (Steinhart 1990). VELB is threatened by urban development, insecticides and herbicides, and fluctuation in water levels. Restoration of this species to former habitats includes the protection and reintroduction of elderberry bushes. Populations of this beetle are known to occur in Stanislaus County (California Natural Diversity Database 2007).

3. Vernal Pool Fairy Shrimp

The vernal pool fairy shrimp is federally listed as threatened and can be found in vernal pools containing clear to tea-colored water. It is endemic to grasslands in the Central Valley and the central and southern coastal mountains, occurring in grass bottom swales or earth sump or basalt flow depression pools in unplowed grasslands (Nagano 1992). Destruction of habitat is the major threat to this species. Loss of vernal pools is the primary cause for the decline of the tadpole shrimp. Commercial and residential development, agricultural development, off-road vehicle use, water development and flood control projects, and alteration caused by the modification of surrounding uplands have destroyed as much as 90% of the suitable habitat for these species (59 FR 48136–48153, September 16, 1994). The vernal pool fairy shrimp occurs from Tehama County down to Santa Barbara County, in the Central Valley to the Central Coast Range. Vernal pool fairy shrimp are known from a few locations in Stanislaus County and may occur in vernal pools located in or adjacent to Modesto (U.S. Fish and Wildlife Service 2005).

4. Vernal Pool Tadpole Shrimp

The vernal pool tadpole shrimp is federally listed as endangered. This freshwater invertebrate does not occur in riverine or marine habitats or in other permanent bodies of water. They occur in vernal pools and other seasonal wetlands with seasonal fluctuations in their habitat, such as the presence or absence of water at specific times of the year, duration of inundation, and other environmental factors such as salinity and pH levels. Loss of vernal pools is the primary cause for the decline of the tadpole shrimp. Commercial and residential development, agricultural development, off-road vehicle use, water development and flood control projects, and alteration caused by the modification of surrounding uplands have destroyed as much as 90% of the suitable habitat for these species. The vernal pool tadpole shrimp is found east of Redding in Shasta County, throughout the Central Valley to the San Luis National Wildlife Refuge in Merced County, and in a single population at the San Francisco Bay

National Wildlife Refuge, Alameda County. Vernal pool tadpole shrimp are known to inhabit a few locations in Stanislaus County and are likely to occur in vernal pools or other temporary water bodies in or adjacent to Modesto (U.S. Fish and Wildlife Service 2005).

5. California Tiger Salamander

The California tiger salamander is a large, stocky salamander that is federally listed as threatened. It frequents the quiet water of ponds and vernal pools during the breeding season and otherwise inhabits open woodlands and grasslands, using ground squirrel burrows for refuge (Stebbins 1985). Sightings of tiger salamander have been documented near the Stanislaus River northwest of Modesto (California Natural Diversity Database 2007).

6. Giant Garter Snake

The giant garter snake is state and federally listed as threatened. This shy snake, which can grow up to 5 feet long, lives in riverine marshes, seasonal wetlands, sloughs, and irrigation ditches in the Central Valley. It feeds primarily on fish and frogs (Steinhart 1990). This snake is susceptible to pesticides and predation by skunks, house cats, raccoons, and predatory game fish such as largemouth bass (Steinhart 1990). This species may have been extirpated from the UAGP planning area, though suitable aquatic habitat is present within the planning area.

7. Greater Sandhill Crane

The greater sandhill crane is state listed as threatened. This species does not nest within Central Valley, but does winter in the Sacramento and San Joaquin Valleys. These large birds feed during the day in pastures, croplands, and marshes. They are between 3 and 4 feet tall, live up to 80 years, and mate for life. Collisions with powerlines are a major cause of death in winter when utility wires are shrouded in fog (Steinhart 1990).

8. American Peregrine Falcon

The American peregrine falcon is state listed as endangered. This species nests on protected ledges of high cliffs in the Coast Range, Sierra Nevada, and other mountains in northern California. Nest locations are often near wetlands, lakes, rivers, and other large water bodies that support prey species. In the winter, peregrine falcons can be found throughout the Central Valley. Peregrine falcons feed on smaller birds that are often captured in flight (Zeiner et al. 1990).

9. Bald Eagle

The bald eagle is state listed as endangered. It does not nest within the Central Valley but is an occasional winter visitor to the Sacramento and San Joaquin Valleys and surrounding foothills. Bald eagles feed along

open waterways of streams and rivers. Riparian/riverine habitats are important wintering areas for this species (Mayer and Laudenslayer 1988).

10. Swainson's Hawk

Swainson's hawk is state listed as threatened. This species nests along the Stanislaus and San Joaquin Rivers in Stanislaus County. Swainson's hawks require suitable foraging areas such as grasslands or alfalfa or grain fields supporting rodent populations next to nesting areas. Female Swainson's hawks require territories up to 2,200 acres, and males require four to five times that amount (Steinhart 1990). Known nest sites are located along Stanislaus River next to the City's planning area. Additional known nest sites are located along Dry Creek and the San Joaquin River within the vicinity of the planning area (California Natural Diversity Database 2007).

11. Western Yellow-Billed Cuckoo

The western yellow-billed cuckoo is a candidate species under the federal ESA and is listed as endangered under CESA and may have been extirpated from Stanislaus County. The last known occurrence was in 1973 at the mouth of the Stanislaus River (California Natural Diversity Database 2007). This species is a riparian forest nester of large river systems such as the Stanislaus. It winters in South America and returns to California in the summer to nest (Steinhart 1990). The cuckoo feeds on insects and tree frogs.

12. Riparian Woodrat

The riparian woodrat is federally listed as endangered and is a California species of special concern. Riparian woodrats are known only from areas along the San Joaquin, Stanislaus, and Tuolumne Rivers. Its habitat has been diminished along riparian corridors by regulation of stream flow, stream channelization, cultivation of floodplains, and brush and tree removal (Williams 1986).

13. Riparian Brush Rabbit

The riparian brush rabbit is federally and state listed as endangered. Riparian brush rabbits occupy dense thickets of wild rose, willows, and blackberries that grow along riverbanks in Stanislaus County. The only known population is found on the lower part of the Stanislaus River in Caswell State Park (Williams 1986). However, there may be other colonies along the river that have not been discovered (Williams 1986).

4. Existing Regulatory Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local (County and City) laws, regulations, and policies or summaries of these requirements that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master Environmental Impact Report (Master EIR) analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, their incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR. All reference numbers in this section are designated as SWPH-*X* (Sensitive Wildlife or Plant Habitat), where *X* is the discrete number.

a. Federal Regulations

The ESA establishes a national policy to protect threatened and endangered wildlife and plant species and foster their recovery. Animals and plants listed as threatened or endangered by federal action under the act are subject to special protection. The ESA requires federal agencies to ensure that their actions, and actions which they fund, license, or permit, do not result in the “take” of threatened or endangered species. *Take* is defined as activities which harm, harass, pursue, injure, or kill members of the species. This includes modification or degradation of habitat that kills or injures wildlife.

SWPH-1: The federal ESA is intended to protect threatened and endangered wildlife, fish, and plant species and their habitat, and to foster their recovery. Animals and plants listed as threatened or endangered by federal action under the act are subject to special protection. The ESA requires federal agencies to ensure that their actions, and actions which they fund, license, or permit, do not result in the “take” of threatened or endangered species.

If a proposed project authorized, funded, or carried out by a federal agency might affect a listed species, then, under Section 7 of the act, the federal agency must consult with the USFWS regarding the potential for take. The USFWS will issue a biological opinion that includes measures to minimize or avoid project impacts and may issue an incidental take permit that essentially allows accidental losses. This requirement affects private projects that have some level of federal involvement (i.e., issuance of a Section 404 permit under the Clean Water Act (CWA), delivery of federal surface water supplies by the Bureau of Reclamation and federal crop subsidies under the Department of Agriculture, funding by the Department of Housing and Urban Development, and funding of highway projects by the Federal Highway Administration).

SWPH-2: If a proposed project does not involve a federal agency, but is likely to result in take of a species listed under the ESA, the project proponent must apply to the USFWS for an incidental take permit under Section 10 of the ESA. The measures to avoid or minimize take will be incorporated into a habitat conservation plan, and an incidental take permit may be issued. Section 9 of the ESA authorizes the USFWS to act against individuals and agencies if any unauthorized take occurs.

SWPH-3: The USFWS is concerned over the incremental loss of rare vegetation communities in the Central Valley. In the opinion of the USFWS, such losses will hinder the ability of local jurisdictions to develop effective land use strategies for the preservation of listed wildlife

and plant species. Therefore, the USFWS recommends that mitigation be required for any impacts to rare communities, even if they were previously disturbed. Typically the USFWS recommends a minimum replacement rate of 3 acres of habitat preserved in perpetuity for each acre destroyed or degraded, though project-specific mitigation ratios will be determined through coordination with the USFWS.

SWPH-4: The federal CWA (33 U.S.C. Section 121 et seq.) establishes regulations for the protection of waters from pollution. Section 404 of the Act establishes a permit program, administered by the U.S. Army Corps of Engineers (USACE), regulating the discharge of fill material into “waters of the United States,” including wetlands (USACE 33 CFR 328.3). Discharges can be authorized by either individual or general (i.e., nationwide) permits. The USACE regulates the discharge of dredged fill material for non-water-dependent uses into special aquatic sites, including wetlands and vernal pools. Filling of these features may occur only if there is no practicable alternative that would have less adverse impact. An alternatives analysis is required prior to issuance of a permit by the USACE. The stream channels of the Tuolumne and Stanislaus Rivers and Dry Creek would be subject to Section 404 jurisdiction. Other wetlands, such as fresh emergent wetlands and vernal pools, would potentially be subject to Section 404 regulation, but would need to have a hydrologic connection to one of the rivers or creeks to qualify as a water of the United States. Where filling of a water of the United States would affect a threatened or endangered species, as may happen in vernal pools, the USACE would consult with the USFWS regarding compliance with the ESA.

Separately, Executive Order 11990 (issued by President Clinton) avoids direct or indirect support of new federal construction in wetlands whenever practical alternatives exist. In the context of the Master EIR, it applies to actions undertaken or funded by the federal government, such as issuance of “incidental take” permits by the USFWS, individual Section 404 permits by the USACE, and federally funded state or local road projects. The order stipulates that new construction must provide the public an opportunity for review of proposed activities, evaluate practical alternatives, and identify practical measures to minimize the harm to wetlands.

All projects that have a federal component and that may affect state water quality (including projects that require federal agency approval, such as issuance of a Section 404 permit) must also comply with Section 401 of the CWA. Thus, applicants for a Section 404 permit must also obtain certification from the Regional Water Quality Control Board (RWQCB). For effects on wetlands that are not under USACE jurisdiction, and therefore are not regulated under Section 404, applicants must still consult with the RWQCB for effects on waters of the state. The RWQCB generally issues waste discharge requirements for these effects.

b. State Regulations

SWPH-5: The DFG is responsible for maintaining all native fish, wildlife, plant species, and natural communities in California for their intrinsic and ecological values as well as for their direct benefits to people. The DFG also administers the CESA. The CESA applies to plant and animal species that have been listed as threatened or endangered by the State Fish and Game Commission. CESA’s policies protect, restore, and enhance threatened or endangered species. The CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species, if reasonable and prudent alternatives are available. The DFG may issue an incidental take permit when the potential impacts to listed species can be fully mitigated and the project proponent has committed to that mitigation (Fish and Game Code 2080 et seq.).

SWPH-6: The DFG is also responsible for the streambed alteration agreements program. Under Fish and Game Code 1600, et seq, activities that would result in the diversion, obstruction or change in the natural flow or bed, channel or bank of a stream, lake or river; would use materials from a streambed; or would result in the deposition of debris, waste, or other material into a streambed must first be approved by the DFG through issuance of a streambed alteration agreement. The purpose of the streambed program is to limit damage to stream habitats. Streambed Alteration Agreement requirements would apply to Dry Creek, the Tuolumne and Stanislaus Rivers, and all of the canals.

SWPH-7: Special-status species under the CESA or other state regulations, or that are listed by the CNPS, include the following categories.

- Species listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 California Code of Regulations [CCR] 670.5).
- Species meeting the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code, Section 1900 et seq.).
- Plants considered by CNPS to be “rare, threatened, or endangered in California” and included in CNPS Lists 1B and 2 (California Native Plant Society 2007). Plants included in List 1A of the CNPS Inventory are presumed extinct in California, but potentially could be rediscovered and should be considered during the preparation of environmental documents relating to CEQA. Plants on List 1B of the CNPS Inventory are considered rare, threatened, or endangered in California and elsewhere, are eligible for state listing, and are likely to meet the biological criteria that require the plants to be considered under the State CEQA Guidelines.
- Plants listed by the CNPS as plants about which more information is needed to determine their status and plants of limited distribution (Lists 3 and 4 in CNPS 2007), but that may be included as special-status species on the basis of local significance or recent biological information. Plants on the CNPS list 4 are plants of limited distribution that are of local significance and should be considered during the preparation of environmental documents.
- Animal species of special concern to the DFG (California Department of Fish & Game 2006, Jennings and Hayes 1994, Remsen 1978, Williams 1986).
- Animal species fully protected in California (California Fish and Game Code, Section 3511 [birds], Section 4700 [mammals], and Section 5050 [reptiles and amphibians]).
- In addition to the above, nesting birds and raptors are protected under Sections 3503 and 3503.5 of the California Fish and Game Code.
- State-listed, candidate, and species-of-special-concern plant and animal species possibly occurring around the City of Modesto, their status, and habitats are presented in Appendix E.

California “species of special concern” have no special legal status. Species in this category are those whose breeding populations in the state have declined severely or are otherwise so low that extirpation is a real possibility (Remsen 1978). This list is to help land management agencies, developers, landowners, and the general public take action to protect these declining populations before they become threatened or endangered.

SWPH-8: The California River Greenways Program of the State Lands Commission has policies that reflect the goals of protecting, restoring, and maintaining the riparian vegetation, and

providing recreational use and public access, as appropriate, to and through riparian areas.

c. Stanislaus County General Plan Policies

There are no applicable Stanislaus County General Plan policies.

d. City of Modesto Policies

The UAGP provides the following policies related to sensitive wildlife and plant habitat.

(1) Baseline Developed and Redevelopment Areas

SWPH-9: For proposed development consistent with the adopted Urban Area General Plan on lands within the Baseline Developed Area and Redevelopment Plan Area, exclusive of lands within the Dry Creek and Tuolumne River Comprehensive Planning Districts, an assessment of whether any potential habitat for special-status species is present within proposed development areas shall be made. No further biological study is warranted unless habitat is present or if specific information concerning the known or potential presence of significant biological resources is identified in future updates of the California Natural Diversity Database, or through formal or informal input received from resource agencies or other qualified sources. (UAGP Policy VII-E.2[a])

(2) Planned Urbanizing Area

Focused EIRs for Comprehensive Plans in the Planned Urbanizing Area shall incorporate the following measures.

SWPH-10: For all lands within the Planned Urbanizing Area, site-specific surveys shall be conducted by a qualified biologist to determine whether any sensitive natural communities or species are present within the proposed development area. These studies shall particularly focus on proposed development within any lands included within a potential biological resource study area as delineated on Figure V-7-1 in the Final Master Environmental Impact Report (Riparian Corridor Diagram). Prior to considering development applications, the City shall coordinate with the USFWS regarding listed species and potential for impacts. The City shall employ the measures recommended by the USFWS to avoid an incidental take.

Surveys should be conducted at the appropriate season to best determine the likelihood of occurrence and should employ accepted methodologies as determined by California Department of Fish and Game (CDFG) and the U.S. Fish and Wildlife Service (USFWS). The significant results of such surveys should be recorded onto the City's existing biological resources map for future planning purposes. (UAGP Policy VII-E.3[a])

SWPH-11: All areas occupied or potentially occupied by special-status species shall be avoided and preserved, where feasible. Areas that can be avoided shall be protected by fencing, signage, or establishment of buffer zones appropriate to the species and/or habitat involved. Generally, a minimum 100-foot buffer of undeveloped land would be necessary. This buffer area should be improved through sustainable habitat restoration.

The protected habitat shall be required to be managed so as to contribute to the long-term conservation of the species and ecosystems on which they depend.

Where it is determined that state and/or federally listed species are present, consultation shall be carried out with the CDFG and/or USFWS in accordance with the California and/or federal Endangered Species Acts to determine mitigation measures to avoid and minimize impacts to those species. If other special-status species are determined to be present and cannot be avoided, species-specific mitigation measures shall be implemented to minimize impacts to those species through informal consultation with CDFG and/or USFWS. The mitigation measures and other recommendations of these agencies shall be incorporated into the development plan. Where a Community Plan is prepared, these shall become policies of the plan. (UAGP Policy VII-E.3[b])

SWPH-12: Additional measures to protect sensitive habitats may be implemented. Potential measures to be implemented may include measures listed in Table V-7-1 in the Final Master Environmental Impact Report. (UAGP Policy VII-E.3[c])

SWPH-13: Table V-7-1 presents additional environmental protections.

Table V-7-1. Policies For Sensitive Biological Habitats

(Note: This table does not use the standard nomenclature in order to be consistent with the reference contained in the Urban Area General Plan.)

a.	Avoid disturbance in wetland areas, including vernal pools and riparian communities along rivers and streams. Avoidance of these areas would include implementing a no-disturbance buffer at least 100 feet from the high water mark of channels that have no riparian vegetation and 250 feet from the outermost high water edge of the all marsh wetlands, vernal pools, and swales. Riparian vegetation shall be protected with a 200-foot wide no-disturbance buffer delineated from the high water mark of the surface water body. If complete avoidance is not possible, the disturbance to the wetland shall be minimized to the maximum extent possible, with restoration of the disturbed area provided. The topsoil within the wetland shall be removed and kept separate from other spoils to be used in restoration. New vegetation should consist of similar native species to those removed. Activities within or near wetlands shall occur only under permit (either individual or nationwide) from the U.S. Army Corps of Engineers. Prior to development, wetland areas shall be delineated by a qualified biologist in accordance with the delineation standards of the Corps.
b.	Where wetlands or other sensitive habitats cannot be avoided, replacement habitat at a nearby off-site location shall be provided in accordance with the requirements of the applicable federal or state agency. The replacement habitat should be substantially equivalent to the nature of the habitat lost and should be provided at a ratio suitable to assure that, at a minimum, there is no net loss of habitat acreage or value. The replacement habitat shall be set aside in perpetuity for habitat use. Typically, the U.S. Fish and Wildlife Service and California Department of Fish and Game require a ratio of three replacement acres for every one acre of riparian or wetland habitat lost.
c.	Confine work in or near streams, wetlands, and vernal pools to the dry season between May 1 and October 1. Minimize road widths at stream or wetland crossings, and construct roads at right angles to reduce adverse impacts to riparian corridors.
d.	Preserve existing and mature native trees to the extent feasible, except when such trees are diseased or otherwise constitute a hazard to persons or property. During construction, all activities and storage of equipment should occur outside the drip lines of any trees to be preserved.
e.	All areas within identified riparian corridors shall be maintained in a natural state, or limited to recreation and open space uses. Recreation should be limited to passive forms of recreation, with any facilities constructed to be non-intrusive to wildlife or sensitive species.
f.	New landscaping within or immediately adjacent to the identified riparian corridors should employ native

	species ecologically consistent with natural riparian habitats.
g.	Within the identified riparian corridors, environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses consistent with these values shall be allowed (e.g., nature education and research, fishing, habitat enhancement and protection).
h.	Any tree removal shall occur during the nonbreeding season for birds (mid-September through January). If construction activities or tree removal must occur during the breeding season (February through mid-September), surveys for active nests shall be conducted by a qualified biologist no more than 30 days prior to the start of construction. A minimum no-disturbance buffer of 250 feet shall be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.
i.	The study site may contain elderberry shrubs. All projects within the study area should evaluate the project site conditions for the potential for elderberry shrubs removal. If elderberry shrubs are present, appropriate mitigation should be discussed and prior to any subsequent project approvals, early consultation with USFWS is recommended. The removal and trimming of elderberry shrubs is regulated by the U.S. Fish and Wildlife Service (USFWS).
j.	<p>Burrowing owls are known to occur within the study area. Impacts to burrowing owls and their nest burrows must be avoided in order to comply with the Federal Migratory Bird Treaty Act (MBTA) and Department of Fish and Game (DFG) Code Sections 3503, 3503.5, and 3513. If any ground-disturbing activities occur during the burrowing owl nesting season (approximately February 1 through August 31), implementation of avoidance measures is required. DFG recommends that a preconstruction site survey be conducted no more than 30 days before the onset of any ground-disturbing activities. Further, if preconstruction surveys determine that during the nonbreeding season burrowing owls occupy the site, a passive relocation effort shall be installed.</p> <p>DFG's Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 1995) recommends that impacts to occupied burrows be avoided by implementation of a no-construction buffer zone of a minimum of 250 feet, unless a qualified biologist approved by DFG verifies through noninvasive methods that either: 1) the burrowing owls have not begun egg laying and incubation; or 2) that juveniles from the occupied nest are foraging independently and are capable of independent survival. Failure to implement this buffer zone could cause adult burrowing owls to abandon nests, cause eggs or young to be directly impacted (crushed), and/or result in reproductive failure.</p> <p>The DFG Staff report on Burrowing Owl Mitigation also recommends that a minimum of 6.4 acres of foraging habitat per pair or unpaired resident burrowing owl should be acquired and permanently protected to offset the loss of foraging and burrowing habitat.</p>
k.	<p>The State-threatened Swainson's hawk is known to nest within the study area. Due to loss of suitable foraging habitat and existing nesting habitat that may occur during area development, mitigation measures compensating for these potential losses of habitat should be included. DFG's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (California Department of Fish and Game 1994) recommends that for projects that occur within 1 mile of an active nest tree, 1.5 acres of habitat be protected in perpetuity for every acre of Swainson's hawk foraging habitat affected; for projects that occur within 5 miles of an active nest tree, 0.75 acre of habitat should be protected in perpetuity for every acre of foraging habitat impacted; and for projects within 10 miles of an active nest tree, 0.5 acre of habitat should be protected in perpetuity for every acre of foraging habitat impacted. The project sponsor should provide funding of a sufficient long-term endowment for the management of the protected properties.</p> <p>The project area contains mature trees that could be used as nesting habitat. DFG considers the removal of known raptor nest trees, even outside of the nesting season, to be a significant impact under CEQA and, in the case of Swainson's hawk, could also result in "take" under the CESA. This is especially true in species such as Swainson's hawk, which exhibit high site fidelity to their nest and nest trees year after year (California Department of Fish and Game 1994). To avoid such impacts, surveys for nesting raptors should be conducted following the survey methodology developed by the Swainson's Hawk Technical Advisory Committee (2000) prior to any disturbance within 5 miles of a potential nest tree). Impacts to known nest trees should be avoided at all times of year. If avoidance of a known nest tree is not feasible, consultation with DFG is warranted prior</p>

to taking any action, and a determination of “take” potential under CESA or under Fish and Game Code Sections 3503.5 and 3513 will be made. Project-related “take” (as defined in Section 86 of the Fish and Game Code) of Swainson’s hawk must be completely avoided or a State Incidental Take Permit, pursuant to Section 2081 of the Fish and Game Code, would be warranted.

(3) Comprehensive Planning Districts in Riparian Corridors

SWPH-14: All three riparian corridors within the planning area (Dry Creek, Stanislaus River, Tuolumne River) are designated as Comprehensive Planning Districts under the Urban Area General Plan. Development within these areas will be subject to a Comprehensive Plan and a Focused EIR prepared for that plan: (UAGP Exhibit III-1.) Preparation of a Park Master Plan shall suffice as the Comprehensive Plan for these areas. However, until a Park Master Plan is completed for these areas, the Tuolumne River Regional Park Master Plan shall be the guiding plan for the Dry Creek CPD. The TRRP Master Plan shall suffice as the Comprehensive Plan for Tuolumne River Comprehensive Planning District. (UAGP Policies III-5.7[b] and III-24.7[b] and [c]). The Comprehensive Planning Districts for these three corridors specify that land uses will be limited to “open space” use (i.e., low-impact recreational facilities, public ownership, agriculture, low-density residential uses not exceeding one dwelling per 10 acres). Other open space policies specific to the riparian corridors require that riverfront vegetation be consistent with riparian habitat, environmentally sensitive habitat areas be protected against significant disruptions of habitat values, and land uses be limited to those dependent on the riparian resource. (UAGP Policies VII-B.8 [j] through [q]) Measures in Table V-7-1 shall also apply to the Comprehensive Planning Districts for the riparian corridors.

The Dry Creek Comprehensive Planning District intends for its 510 acres to become a linear park (UAGP Exhibit II-5). The 810-acre Stanislaus River Comprehensive Planning District is to become a regional park (UAGP Exhibit II-21).

The Tuolumne River Comprehensive Planning District contains 1,380 acres, including a significant amount of public land owned by a joint-powers authority (JPA) made up of Modesto, Ceres, and Stanislaus County. It is a Regional Park designed to serve the residents of Modesto, Ceres, Stanislaus County, and the greater San Joaquin Valley area (UAGP Exhibit II-24). The JPA has completed and the City has certified a Master EIR for the Tuolumne River Regional Park (TRRP) Master Plan. The TRRP Master EIR contains mitigation measures addressing impacts on sensitive plant and wildlife habitat relating to recreation facility development and conservation activities within the TRRP.

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the UAGP area. Federal and state policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed below, the full text of these policies is found above in Section A-4 above, *Existing Regulatory Policies Applying to the Study Area*.

a. Federal Policies

Enforcement of the federal CWA, the ESA, the CESA, and related regulations will minimize future impacts on wildlife and plant habitat, including cumulative impacts. Federal policies include SWPH-1 through SWPH-6.

b. State Policies

Enforcement of the CESA, Streambed Alteration Agreement statute, and related regulations will minimize future impacts on wildlife and plant habitat, including cumulative impacts. State policies include SWPH-7 through SWPH-10.

d. City of Modesto Policies

The following existing or proposed UAGP policies would mitigate or avoid impacts on sensitive wildlife and plant habitat.

1. Baseline Developed and Redevelopment Areas: SWPH-9
2. Planned Urbanizing Area and Comprehensive Planning Districts in Riparian Areas: SWPH-10 through SWPH-14

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects on biological resources using Appendix G of the State CEQA Guidelines and the “mandatory findings of significance” (Section 15065). Appendix G of the State CEQA Guidelines is a sample checklist for assessing potential impacts on agricultural land. It offers the following broad suggestions for impact assessment. Would the project:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Section 15065 of the State CEQA Guidelines identifies several mandatory findings of significance which require the preparation of an EIR. The one involving wildlife and plant habitat is as follows, in part:

The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species

2. Thresholds of Significance Suggested by Other Analytical Methods

The regulations contained in the ESA and the CESA clearly establish that actions which would result in the “take” of a listed species or that would adversely impact protected species are significant. Under the ESA, habitat loss is seen as a contributor to take and losses of species-related habitat are considered significant. Under the CWA, filling of waters of the United States may be significant.

3. Thresholds of Significance Adopted by the City of Modesto

Federal and state laws regarding special-status species and species of concern establish a comprehensive regulatory scheme specifically designed to protect those wildlife and plant species from extinction. Compliance with these laws and regulations avoids the need to make the mandatory finding of significance described in Section 15065 of the State CEQA Guidelines.

The City finds that actions which would violate the federal and state laws described in this section (and related regulations), including but not limited to the ESA, the CESA, and the federal CWA, would be significant.

4. Significant Direct Impacts

a. Impacts within the Baseline Development and Redevelopment Areas

There is low potential for impacts on sensitive wildlife and plant habitats within the Baseline Developed Area and Redevelopment Area. Other than lands within the designated riparian corridors, most of the land projected for development within the Baseline Developed Area and the Redevelopment Area are vacant lands generally characterized by weedy, non-native vegetation and habitats of limited value. Implementation of policy SWPH-12 would address

potential impacts in these areas. Potential impacts within these areas, therefore, would be considered less than significant.

b. Impacts within the Planned Urbanizing Area

The UAGP envisions urban development over the next 20 years within approximately 21,625 acres that fall within the Planned Urbanizing Area. The majority of this land is in agricultural use, including orchards, pasturelands with vernal pool grasslands, and some scattered urban uses. The projections of approximately 148,600 residents and 144,000 employees to be accommodated in the Planned Urbanizing Area under the UAGP will convert much of this area to urban uses, thereby reducing the acreages of grassland, crops, and pastureland.

Biologically sensitive areas within the Planned Urbanizing Area include land within the riparian corridors, riverine habitat, fresh emergent wetlands, and grasslands east of the Burlington Northern and Santa Fe Railway that may support vernal pools. Development within the Planned Urbanizing Area has potential to affect these sensitive habitats and special-status species that can occur in these habitats (Tables E-1 and E-2 in Appendix E). The impact of development in the Planned Urbanizing Area on these habitats will be less than significant with implementation of UAGP policies described above, measures in the TRRP Master Plan and Master EIR, and other regulations that will apply to future development (i.e., the CWA, California Fish and Game Code, the ESA, and CESA).

(1) Potential Impacts on Valley Foothill Riparian, Riverine, and Fresh Emergent Wetland Habitats in the Planned Urbanizing Area

The UAGP designates all riparian corridors within the planning area as open space. This designation decreases the potential impacts on valley foothill riparian, riverine habitat, and associated fresh emergent wetlands within those corridors by limiting the intensity of potential land uses. Development of recreational facilities or other open space uses will be subject to the policies of the Planned Urbanizing Area which will ensure that development will be required to meet the protective federal and state laws and regulations. A master plan has been developed for the TRRP, and a master plan will be prepared for the Dry Creek Comprehensive Planning District. These two areas encompass all riparian, riverine, and associated fresh emergent wetland habitats in the Planned Urbanizing Area. Project-specific measures to protect the riparian corridor will be required when the master plan is prepared for the Dry Creek Comprehensive Planning District.

The Master EIR prepared for the TRRP Master Plan (EDAW 2001) identified a number of project-specific significant effects that would result from implementation of the plan. They include impacts on riparian habitats, waters of the United States (which includes riverine and fresh emergent wetland), special-status fish species and their habitat, VELB, and nesting raptors. With implementation of the mitigation measures required under the TRRP Master EIR, the impacts would be less than significant. The impacts are detailed in the Master EIR prepared for the TRRP Master Plan, which is hereby

incorporated by reference. The TRRP impacts and project-specific mitigation measures are in Appendix F.

Therefore, with implementation of the TRRP mitigation and measures to be developed as part of the Dry Creek master plan, the potential impacts of the UAGP on riparian, riverine, and fresh emergent wetland habitats and their associated special-status species will be reduced to a less-than-significant level.

(2) Potential Impacts on Vernal Pool Habitat in the Planned Urbanizing Area

Areas with potential to support vernal pools occur in the Santa Fe East Comprehensive Planning District. Implementation of SWPH-16 would address these potential impacts on vernal pool habitat and special-status species with potential to occur in vernal pools.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

The project will contribute to the cumulative impact of habitat loss within the San Joaquin Valley. Under the ESA, habitat loss can be considered a significant impact. This impact will be reduced by UAGP policies, in concert with the ESA, the CESA, and related regulations, but will still be a considerable contribution.

The environmental vision of the UAGP states that the UAGP "promotes residential development at higher densities to avoid low-density sprawl and promotes staged urban growth so that the conversion of agricultural land [and, by inference, habitat] is focused to a few villages, not spread broadly around the City's urban perimeter." Providing for higher residential density than the suburban norm and a compact pattern of growth within the designated planning area to 2025 will minimize the City's contribution to the cumulative loss of habitat. Nonetheless, this is a significant and unavoidable impact.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

Implementation of the UAGP would involve subsequent projects, in addition to the development of the land uses designated in the UAGP, which could result in site-specific impacts to sensitive habitats and/or special-status species. The types of impacts that these subsequent projects could have on biological resources include: (1) direct habitat loss (including wetlands and other sensitive natural communities); (2) habitat loss or disruption causing adverse effects on special-status species; and (3) indirect effects on habitats or species due to altered drainage, creation of barriers to wildlife movement, and increased human activity in natural areas.

Because the details of the subsequent projects (including project- and site-specific mitigation measures) are not known at this time, the specific potential impacts of the projects cannot be fully disclosed. If there are impacts in addition to those described above, additional environmental review will be required for specific subsequent projects. Area-specific impacts, based on the proposed land-use pattern contained in future Comprehensive Plans, will be analyzed and disclosed in the Focused EIRs prepared for the respective Comprehensive Plans.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

There are no significant direct effects that are not mitigated through implementation of the UAGP's existing or proposed policies, measures in the TRRP Master Plan and Master EIR, or other regulations that will apply to future development (i.e., the CWA, the California Fish and Game Code, the ESA, and the CESA).

2. Measures Which Mitigate Cumulative Impacts

The UAGP policies described above, measures in the TRRP Master Plan and Master EIR, and other regulations that will apply to future development (i.e., the federal CWA, the California Fish and Game Code, the ESA, and the CESA) will reduce cumulative impacts. No new mitigation measures are proposed.

The total projected population of Stanislaus County will be approximately 857,900 in 2030 (there is no estimate for 2025) (California Department of Finance 2007b). The addition of structures and, to some degree, increased human activity in open space/natural areas that would be associated with this population increase would potentially significantly impact sensitive plant and wildlife habitat. However, the compact concentration of population in the Modesto area (where more than 40% of the total county population is projected to live), as envisioned in the UAGP, would help decrease development pressures in the eastern and western portions of the county, where most of the significant biological resources are located.

Development in the areas most likely to result in cumulative impacts—the riparian areas along Dry Creek, the Stanislaus River, and the Tuolumne River, and undeveloped lands within the Planned Urbanizing Area—will require further site- and project-specific studies to be undertaken, habitat to be set aside, and compensation habitat established, if necessary. At this time, the UAGP has established a policy foundation to ensure that future actions limit their contributions to habitat loss. Nonetheless, they will make a considerable contribution to the cumulative loss of habitat.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Alternative 1 would have somewhat more severe impacts than described above because it does not include updated protective policies in Table V-7-1. Alternative 2 would have similar impacts to those described above.

D. MONITORING THESE MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 211081.6.

The mitigation measures for the TRRP Master EIR are monitored under the mitigation monitoring program adopted for that plan. The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on sensitive wildlife and plant habitat as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City of Modesto or a responsible agency identified in the Master EIR.
2. The following City policies that reduce, avoid, or mitigate environmental effects will continue to be in effect and, therefore, would be applied to subsequent projects where appropriate. The policy reference numbers are listed; the full text of these policies is found in Section A-4 above, *Existing Regulatory Policies Applying to the Study Area*.
 - a. Baseline Developed and Redevelopment Areas: SWPH-12.
 - b. Planned Urbanizing Area: SWPH-13 through SWPH-17.

3. Federal and state regulations relating to special-status species do not change in a manner that is less restrictive on development than current law (i.e., would not offer the same level of protection assumed under this Master EIR).
4. No specific information concerning the known or potential presence of significant biological resources is identified in future updates of the CNDDDB, or through formal or informal input received from resource agencies or other qualified sources.
5. The development will occur within the boundaries of the City's planning area as established in the UAGP.
6. Development within the TRRP will comply with all mitigation measures identified in the TRRP Master Plan Master EIR.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained within this subchapter is current as long as the following circumstances have not changed.

1. No new information, as defined in State CEQA Guidelines Section 15162(a)(3), becomes available relative to sensitive wildlife and plant species and habitat which would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.
2. There are no substantial changes with respect to the circumstances under which the UAGP is being undertaken which would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.
3. There is no new information, including the listing of additional species, new special-status species occurrence, or substantial changes to the CNDDDB, which increases either the species or habitats considered "sensitive" in this analysis.
4. The policies within the Dry Creek, Stanislaus River, and Tuolumne River Comprehensive Planning Districts restrict development to open space uses within a linear park or regional park setting.
5. Policies remain in place that require site-specific surveys by qualified biologists, consultation with state and federal agencies, and avoidance or other mitigation of impacts on habitats as a prerequisite to future development.

Section 8

Disturbance of Archaeological/Historical Sites

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect cultural resources, including prehistoric and historic archaeological sites, historic architectural resources, and places of importance to Native Americans. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on cultural resources is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the UAGP and the *Tuolumne River Regional Park Master Plan* (TRRP Master Plan). The study area for cumulative impacts on cultural resources is the UAGP's planning area.

3. Existing Physical Conditions in the Study Area

a. Prehistoric Background

Although there is little archaeological evidence of human use of the of the Central Valley region during the late Pleistocene and early Holocene (14,000 to 8,000 before present [BP]), this is likely a product of the archaeological record itself, rather than the area's lack of use. Most Pleistocene and Holocene era sites are buried deeply in accumulated gravels and silts, or have eroded away. The earliest archaeological evidence of human use dates from approximately 5,000 BP. The period from 8,000 to 4,000 BP is referred to as the Early Horizon, and, during this period, a more specialized strategy is thought to have replaced a generalized subsistence strategy. This intensification can be seen in what Fredrickson (1973) has identified as the Windmill Pattern. Artifact assemblages and faunal remains at Windmill sites indicate that a diverse range of resources was exploited, including seeds, a variety of small game, and fish.

The Middle Horizon dates from approximately 4,000 to 1,500 BP. Sites from this period have also been found in the Central Valley. The adaptive pattern that is found most frequently during this period is called the Berkeley Pattern (Fredrickson 1973), though sites displaying the Windmill Pattern assemblages have also been dated to the Middle Horizon. The Berkeley Pattern differs from the Windmill Pattern primarily in the increased emphasis on the exploitation of the acorn as a staple, which is shown by the more numerous and varied mortars and pestles. This complex is also noted for its especially well-developed bone industry and such technological innovations as ribbon flaking of chipped stone artifacts. During this period, flexed burials replace extended burials, and the use of grave goods generally declines (Moratto 2004).

The period between 1,500 BP and the arrival of the Spanish in central California has been named the Late Horizon. The predominant pattern during this period is called the Augustine Pattern (Fredrickson 1973). This period is characterized by large village sites, increasing evidence of acorn and nut processing, introduction and use of the bow and arrow, and use of clamshell disc beads as the primary medium of exchange. During the last part of the Late Horizon, cremation became a common mortuary practice.

b. Ethnographic Background

The aboriginal inhabitants of the Modesto area were the Northern Valley Yokuts. The following brief discussion is summarized from W. J. Wallace (1978) except where noted.

Northern Valley Yokuts territory is defined roughly by the crest of the Diablo Range on the west and the Sierra Nevada foothills on the east. The southern boundary is approximately where the San Joaquin River bends northward, and the northern boundary is roughly halfway between the Calaveras and Mokelumne Rivers. The Yokuts may have been fairly recent arrivals in the San Joaquin Valley, perhaps being pushed out of the foothills about 500 years ago by peoples expanding out of the Great Basin from the east.

Population estimates for the Northern Valley Yokuts vary from 11,000 to more than 31,000 individuals. Populations were concentrated along waterways and on the more hospitable east side of the San Joaquin River. Principal settlements were located on the tops of low mounds, on or near the banks of the larger watercourses. Settlements were composed of single-family dwellings, sweathouses, and ceremonial assembly chambers. Dwellings were small and lightly constructed, semisubterranean, and oval. The public structures were large and earth-covered. Sedentism was fostered by the abundance of riverine resources in the area.

Subsistence among the Northern Valley Yokuts revolved around the waterways and marshes of the lower San Joaquin Valley. Fishing with dragnets, harpoons, and hook and line yielded salmon, white sturgeon, river perch, and other species of edible fish. Waterfowl and small game attracted to the water also provided a source of protein. The contribution of big game to the diet was probably minimal. Vegetal staples included acorns, tule roots, and seeds. Goods not available locally were obtained through trade, with overland transport facilitated by a network of trails and tule rafts used for water transport. Paiute and Shoshone groups on the eastern side of the Sierra Nevada were suppliers of obsidian. Shell beads and mussels were obtained from Salinan and Ohlone groups. Trading relations with Miwok groups yielded baskets and bows and arrows.

Most Northern Valley Yokuts groups had their first contact with Europeans in the early 1800s, when the Spanish began exploring the Delta, and the erosion of Yokuts culture began during the Spanish mission period. Escaped mission neophytes brought foreign habits and tastes (both European and other Native American), and there were Spanish expeditions sent to recover escapees. Epidemics of European diseases played a large role in the decimation of the native population. Then, with the secularization of the missions and the release of neophytes, tribal and territorial adjustments were set in motion. People returned to other groups, and a number of polyglot “tribes” were formed. The final blow to the aboriginal population came with the Gold Rush and its aftermath. In the rush to the southern mines, native populations were pushed out of their territories. Former miners settling in the fertile valley applied further pressure to the native groups, and altered the landforms and waterways of the valley. Many Yokuts resorted to wage labor on farms and ranches. Others were settled on land set aside for them on the Fresno and Tule River Reserves.

c. Historical Background

During the late 1700s, the Spanish limited their settlement of “Alta California” to a thin strip of coastal lands represented by the chain of missions constructed during this period. Explorers of the time limited their incursions into the Central Valley to the pursuit of escaped neophytes, the punishment of raiders, and the location of lost or stolen cattle. By the early 1800s, noted Spanish explorers, such as Lt. Gabriel Moraga, lead more frequent expeditions into the valley.

Following Mexico’s independence from Spain in 1821, the colonization of California progressed rapidly, with Mexican governors dividing Indian lands into rancho lands. With the exception of a few grants in the Sacramento Valley, these ranchos were located in the same general areas as the missions. Stanislaus County had only five ranchos, so the area remained largely unsettled before gold was discovered.

Once gold was found in the Sierra Nevada Mountains, the number of people relocating to California exploded. However, early settlement patterns in Stanislaus County reflected prospectors’ desire to forsake valley lands and towns for the more financially lucrative foothills. There were few communities in this early period, and they were primarily considered mining camps. Larger and more permanent settlements sprang up later along the Stanislaus River, including the towns of New Hope, Adamsville, and Paradise. These types of towns increased as disenchanted gold seekers, many with farming backgrounds, realized the agricultural potential of Stanislaus valley lands.

(1) Establishment of Modesto—1870

By 1870, Collis Huntington, Leland Stanford, Mark Hopkins, and Charles Crocker announced plans to construct a railroad down the San Joaquin Valley in order to connect the northern and southern portions of the state. However, instead of connecting San Francisco with Los Angeles directly, the “Big Four” decided to build in the valley, reasoning that usable land within coastal counties was already privately owned; and, since the San Joaquin Valley was largely government-owned, it was ideal because land grants secured by the railroad in exchange for completion of the route

could be located directly along the route's right-of-way. The sales of these lands helped finance the railroad's overall construction costs.

In September of 1869, John James Atherton had purchased 160 acres of land near the center of Stanislaus County from Robert Kirkland and David Monroe. Atherton purchased this land to use as the site for the new railroad town of Modesto. Subsequently, Contract and Finance Company, which was responsible for actually constructing the railroad, purchased the property from Atherton.

The town of Modesto did not officially incorporate until 1884. During its formative years, the town attracted residents from nearby communities, including Empire City, Paradise, and Tuolumne City, all of which lacked a coveted rail connection.

The wheat boom of California, which began in the early 1860s and lasted until 1893, played a key role in the success of Modesto as a commercial and transportation center. Wheat was a rich business that demanded high finances and a strong labor pool throughout the season, both of which could be found in Modesto. Given its proximity to the railroad and the flood of new residents, the success of Modesto as a wheat center was assured until agricultural changes were brought about by the widespread use of irrigation.

(2) Modern Modesto Following the Establishment of Irrigation—1903

As the wheat bonanza came to a close in Stanislaus County during the early 1890s, the residents realized that a dependable system of irrigation was necessary to ensure a more stable farm economy. Although irrigation was in use on a limited basis during the last half of the nineteenth century, it was not until the early twentieth century that the system, as imagined by the residents of Modesto area, was completed. In June of 1903 irrigation water that had been promised more than 16 years earlier, when the Wright Act (authorizing the creation of irrigation districts) was signed into law, finally arrived. Following years of court battles, many farmers along the main canal accessed irrigation water for the first time.

The Modesto area changed rapidly after the implementation of the new irrigation system. The local population increased, land prices rose, and the larger ranches were subdivided. Almost immediately alfalfa became the dominant crop, as its demand increased to supply a new interest in dairying. Another significant change to the area was the cultivation of orchard crops such as peaches, apricots, almonds, and oranges. As the cultivation of alfalfa, orchard, and other crops increased, the processing segment of the agriculture industry, including canning, construction, and financing, also grew.

By 1910, Modesto's population was estimated at 4,500. The City continued to grow, and between 1921 and 1923 the Modesto Irrigation District (MID) and Turlock Irrigation District (TID) constructed Don Pedro Dam to provide a new source of electrical energy for the region.

Stanislaus County continues to embrace its agricultural roots and is home to an expanding number of agribusinesses. However, Modesto and its surrounding area also include a number of manufacturing companies and housing developments.

Consequently, businesses are no longer clustered downtown as development of former agricultural land increases.

d. Physical Conditions

Cultural resources is a general term that includes many types of physical remains of past human activities as well as other types of resources important to Native Americans and other ethnic groups. Cultural resources include prehistoric and historic archaeological remains; historic architectural remains such as buildings and structures, as well as other features of the built environment; and places of importance to Native Americans. Cultural resources that are known to exist in the Modesto planning area include historic and prehistoric archaeological resources, and historic architectural resources. Such resources as are known to exist or may be discovered offer insight into the lives of the original inhabitants of the area and provide an understanding of the City's development. These resources of the past have a place in the future of the City of Modesto.

4. Prehistoric Archaeological Resources

Archaeological resources include material remains indicating the presence of Native Americans: artifacts that were made, used, or altered by people, such as lithic (stone) material, groundstone, and discarded artifacts; and human remains. These items are often found in midden deposits, a rich, organic, dark brown soil that contains charcoal, ash, and food waste (shell, bone, and seeds), but they may also be found individually, isolated from other archaeological remains. Midden deposits are evidence of human activity and generally reflect use of an area over a long period of time. Intermittent use of an area by Native Americans can also be seen in lithic scatters and food processing sites such as bedrock mortar sites or areas with mortars and pestles. Burial grounds or cemeteries are also often associated with habitation. Frequently, burials include associated artifacts, which provide significant clues about people, such as their social status, wealth, level of technology, and religious beliefs.

The archaeological resource study areas, as depicted on the 1995 Master EIR diagrams, indicate areas of the Modesto planning area where there is the highest potential for impacts on cultural resources. The study area boundaries should be considered preliminary and subject to refinement as site-specific information becomes available. A number of archaeological resources have been identified within the Modesto planning area and environs. Specifically, four sites have been recorded at the Central California Information Center (CCIC), in Turlock, California. These areas include habitation sites, burials, and artifact concentrations that are located near the Stanislaus and Tuolumne Rivers, Dry Creek, and terraces above waterways. However, information on prehistoric cultural resources in the Modesto planning area is limited, and is often obtained as a result of development or other proposed activities where archaeological research is required. Agricultural use, grazing, and urban expansion often obscure evidence of archaeological resources.

Previous archaeological studies in the urban area have been limited but include surface surveys by professional archaeological consultants and a survey conducted by an avocational archaeologist during the 1940s. According to a records search by the CCIC in 1994, surveys have been conducted along Dry Creek. Surveys conducted between the Stanislaus River and Dry Creek have been sporadic and limited to project-specific areas, and only a few surveys have been conducted

along the Tuolumne River. Since the 1994 records search, additional cultural resource studies have been conducted in the area, mostly for project-specific sites, and are listed with the CCIC. These studies show that areas of high sensitivity for prehistoric cultural resources include land along the various natural waterways.

5. Historic Archaeological Resources

Historic archaeological resources include remains of human activities from non-Native Americans; these include trash deposits and scatters, building foundations, mining operations, farms and ranches, and roads and trails. Remnants of razed buildings lie beneath the surface and include related deposits such as trash pits. These sub-surface features are some of the only evidence of past activities, enterprises, and peoples. For example, before the institution of garbage collection, refuse was buried in residential backyards or dumped in privy pits or abandoned wells. These trash deposits are often rich in artifacts and can reveal information about early residents, providing significant social and cultural data. An example is the area designated as Chinatown on the Sanborn Maps (1885 through 1911). Although Chinatown is gone, potentially significant cultural resources relating to Chinese-Americans may still exist below present-day shops and businesses. Also, a sensitive area for historic archaeological resources is the original one-square-mile town area that dates to the 1870 founding of Modesto. And pre-urban development along the rivers and valley left sensitive areas for cultural resources relating to ranching, agriculture, mining (gold rush activities, ferry crossings), and the Mexican period.

6. Historic Architectural Resources

Historic architectural resources generally include structures (residential, commercial, civic, farm, and ranching) relating to historic occupation of an area. In the Modesto planning area, known or identified historic architectural resources are primarily found within the urban area, and many have been placed on various preservation lists. Four buildings and a historic bridge are listed on the National Register of Historic Places (NRHP). In addition, 120 properties are listed on the Directory of Determination of Eligibility (1990) for the NRHP. Properties are also listed on the California Points of Historical Interest (1992) and the California Inventory of Historic Resources (1978). As of 2007, the City of Modesto's Landmark Preservation List includes 58 properties—buildings, structures, objects, and natural features of local importance.

General periods of social and economic development help reveal the growth patterns of the present Modesto planning area. The physical growth periods and associated historic resources include:

- town development—1870 to 1900 (McHenry Mansion, Crow House, Davis House/Hatten Home, Bienenu Law Office, Chinatown area);
- urban expansion—1900 to 1930 (historic residential area around Needham Street and Coleman, Pacific Telephone Building, McHenry Memorial Library, Graceada and Enslin Park); and
- the Depression—1930 to 1940 (U.S. Post Office, the Grange Company, Pump Station No. 9).

These resources reflect the private, civic, and commercial history and character of the City.

7. Native American Resources

Places of importance to Native Americans or other ethnic groups include sacred places, burial grounds, areas where certain natural resources are collected or used, and areas where traditional cultural practices have long been conducted or observed. Pursuant to the requirements of SB 18 (Chapter 905, Statutes of 2004), the City consulted with affected Native American tribes regarding places of importance during preparation of the project.

8. Historic Property Descriptions

A number of historic properties within the City of Modesto have been listed on the NRHP, the California Historical Landmarks, the California State Points of Historical Interest, and the City of Modesto Landmark Preservation Sites list. Some of the NRHP-listed properties and city landmarks are eligible for the California Register of Historical Resources (CRHR), but no formal steps have been taken to nominate them. The following provides a summary of the documented historical resources.

a. National Register of Historic Places

Six properties have been listed on or have been determined eligible for the NRHP. They include the McHenry Mansion, the U.S. Post Office—El Viejo Station, the Crow House, Dry Creek Bridge No. 38-54, the Southern Pacific Railroad Depot, and the Walton House. All properties, except for the Crow House, still exist at their NRHP-listed locations.

1. The McHenry Mansion is a restored historic home located at Fifteenth and I Streets. The McHenry family built the house in 1883. The mansion was listed on the NRHP in 1978.
2. The U.S. Post Office is located on Twelfth and I Streets. Wall murals inside the post office were painted by Ray Boynton, a Work Projects Administration artist. The post office was listed in the NRHP in 1983.
3. The Crow House, or the Walter B. Wood House, was originally located at 814 Twelfth Street. The house was originally owned by Walter Wood and was constructed in 1877 in the Italianate style. The house has been removed from its original location, and modern renovation of the house has compromised its NRHP designation.
4. Dry Creek Bridge, formerly on State Route 132, was recommended eligible for its design. The bridge is a major example of John B. Leonard's bridge designs.
5. The Southern Pacific Railroad Depot was constructed in 1915 in the Mission style at the corner of J and Ninth Streets. The City of Modesto was established as a town by the Southern Pacific Railroad in 1870. The building has been restored and expanded as the City Transportation Center.
6. The Dr. Robert G. and Mary Walton House was constructed in 1957, as a development of Frank Lloyd Wright's New York Usonian Exhibition House concept.

In addition to these six properties, more than 100 properties are listed in the Directory of Determination of Eligibility (1990) for the NRHP. These properties primarily include

residences located on Alturas, Colorado, Fresno, Leon, Rosedale, and Yosemite Avenues, and Tuolumne Boulevard.

b. California Register of Historical Resources

The CRHR includes properties that are listed on or determined eligible for the NRHP, State Historical Landmarks, selected State Points of Historical Interest, and resources nominated directly to the CRHR. Eligible historical resources are nominated for the CRHR and may be added to the register after review of the nomination by the State Historical Resources Commission. Modesto has no historical resources listed on the CRHR. A number of the 410 properties that were inventoried in 1984 for the City of Modesto Landmark Preservation Sites, as well as buildings that were surveyed in 1997 by Carey & Co., that are now on the City's Landmark Preservation Sites list are probably eligible for listing on the CRHR, but have not been nominated.

c. California Historical Landmarks

There are no cultural properties listed for the Modesto planning area that have California Historical Landmark status.

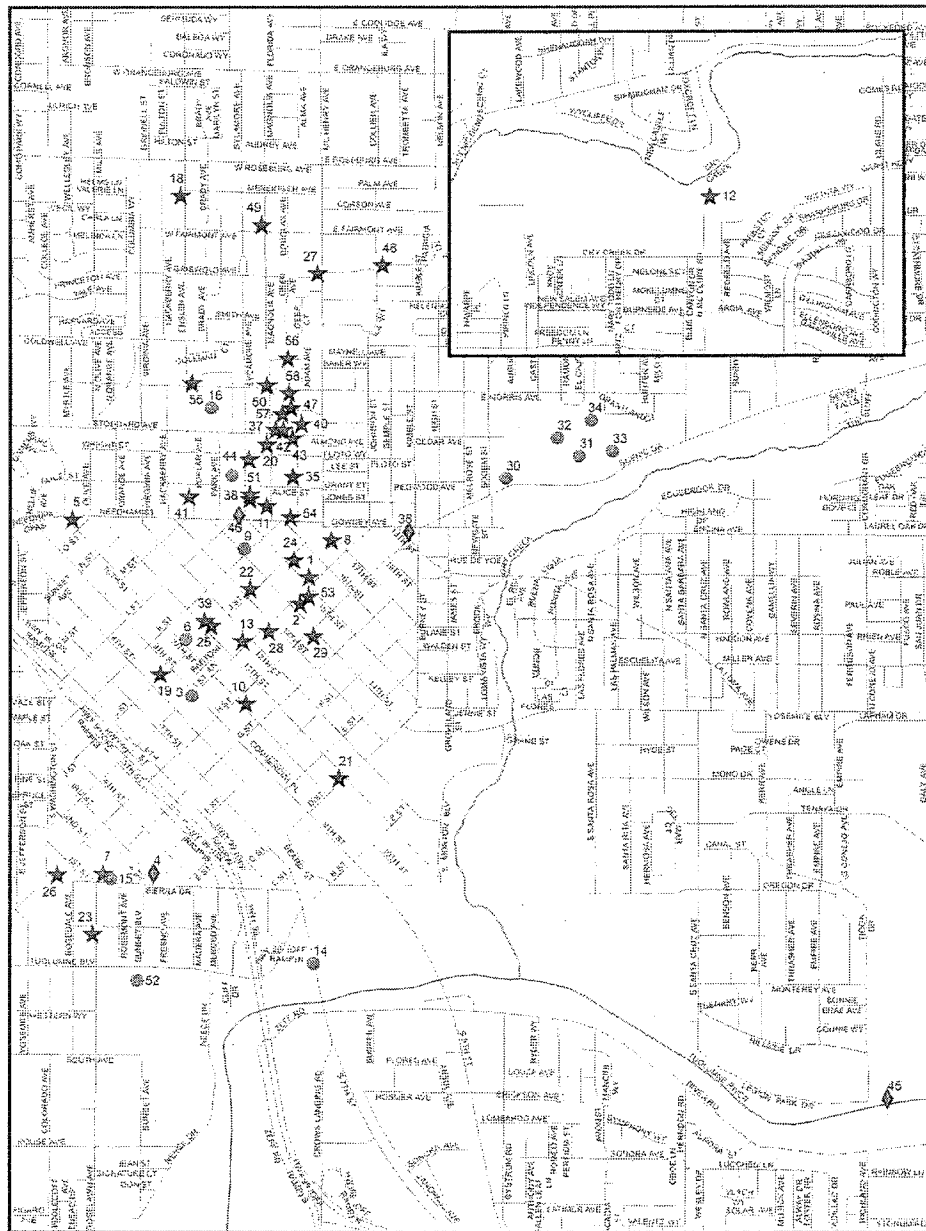
d. California State Points of Historical Interest

One property, the McHenry Mansion, is listed on the State Points of Historical Interest.

e. City of Modesto Landmark Preservation Sites

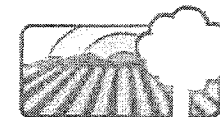
In March 1984 a survey was conducted in which 410 properties were identified as eligible for landmark status. The list was updated in October 1992 with an additional 42 properties. Structures include government buildings, churches, schools, fraternal organizations, commercial buildings, hotels, and residential and apartment buildings. As of December 2007, 58 sites have been designated as City of Modesto Landmark Preservation Sites (see Figure V-8-1).

1. McHenry Mansion, 906 15th Street, designated 12/5/89
2. McHenry Museum, 1402 I Street, designated 12/5/89
3. Modesto Arch, 9th & I Streets, designated 12/5/89
4. Modesto Ash Tree, Sierra & 3rd Streets, designated 10/9/90
5. Pump Station No. 9, 10th & Needham Streets, designated 10/9/90
6. Woolworth Co. Sign, 1014 10th Street, designated 10/9/90
7. Fire Station No. 2, 629 2nd Street, designated 10/9/90
8. Cressy Manor, 917 17th Street, designated 11/13/90
9. Turner Hitching Post, 1104 14th Street, designated 4/23/91



Landmark Sites

- 1 - McHenry Mansion
- 2 - McHenry Museum
- 3 - Modesto Arch
- 4 - Modesto Ash Tree
- 5 - Pump Station No. 9
- 6 - Woolworth Company Sign
- 7 - Fire Station No. 2
- 8 - Cressey Manor
- 9 - Turner Hitching Post
- 10 - Modesto News Herald Bldg.
- 11 - Hawke Castle
- 12 - McClure Country Place
- 13 - U S Post Office and Federal Bldg
- 14 - 7th Street Bridge
- 15 - Fire Bell
- 16 - Ensien Park
- 17 - Graceada Park
- 18 - "Rammed Earth" House - Mrs. A. Bradley, owner
- 19 - Southern Pacific Transportation Center
- 20 - Ralph M. Brown Home
- 21 - Gallo Founders Bldg.
- 22 - The State Theatre
- 23 - Graham Home
- 24 - Masonic Temple
- 25 - Stockton Savings Bank
- 26 - H Street Facade of Modesto High School
- 27 - Wissner Medical Office Bldg
- 28 - Elk's Lodge
- 29 - First Church of Christ Scientist
- 30 - Acacia Memorial Park
- 31 - Modesto Pioneer Cemetery
- 32 - Modesto Cemetery
- 33 - St. Stanislaus Catholic Cemetery
- 34 - Stanislaus County Cemetery (aka Porter's Field)
- 35 - Dr. Donald Robertson Home
- 36 - City's Christmas Tree
- 37 - The Stanley Home
- 38 - The John M. Walshall Home
- 39 - The Pacific Telephone
- 40 - The Gundlach Residence
- 41 - Lish Residence
- 42 - Guzman Residence
- 43 - Ayres Residence
- 44 - Harris Home
- 45 - Large Valley Oak Tree
- 46 - Bunya Bunya Tree City of Modesto
- 47 - Balmannos Residence
- 48 - Cadrett Residence
- 49 - Montrie & Robinson Residence
- 50 - Anderson Residence
- 51 - Scully Residence
- 52 - Municipal Golf Course
- 53 - Apartments (historic name "Foy" Apartments)
- 54 - Centenary Methodist Church
- 55 - McDonald Residence (historic name "Johnson House")
- 56 - Drazen Residence (historic name "Dr. J.C. Robertson House")
- 57 - Lundgren House
- 58 - Silva House



CITY of MODESTO

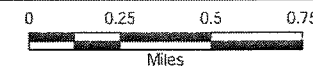
GENERAL PLAN PROGRAM

Figure V-8-1 LANDMARK PRESERVATION SITES IN THE CITY OF MODESTO

LEGEND

Landmark Sites

- ★ BUILDING
- OTHER
- ◆ TREE
- ROADS
- ~ RIVER



1:21,000 SCALE

Landmark Preservation Sites map
July 23, 2007



10. Modesto News Herald Building, 726 10th Street, designated 4/23/91
11. Hawke Castle, 115 Magnolia Avenue, designated 4/23/91
12. McClure Country Place, 1500 N. McClure Road, designated 11/26/91
13. U.S. Post Office & Federal Building, 1125 11th Street, designated 11/26/91
14. Seventh Street Bridge, 7th Street, designated 4/28/92
15. Fire Bell, 629 2nd Street, designated 4/28/92/
16. Enslen Park, Stoddard & Enslen Avenues, designated 12/8/92
17. Graceada Park, Sycamore & Needham Avenues, designated 12/8/92
18. Rammed Earth House, 1027 N. Enslen Avenue, designated 7/13/93
19. Southern Pacific Transportation Center, 9th & J Streets, designated 12/7/93
20. Ralph M. Brown Home, 309 Magnolia Avenue, designated 3/22/94
21. Gallo Founder Home, 401 11th Street, designated 3/22/94
22. State Theatre, 1307 J Street, designated 1/10/95
23. Graham Home, 206 Roselawn Avenue, designated 7/25/95
24. Masonic Temple, 1500 J Street, designated 7/25/95
25. Stockton Savings Bank, 1101 J Street, designated 7/25/95
26. H Street Façade of Modesto High School, 18 H Street, designated 7/25/95
27. Wissner Medical Office Building, 901 McHenry Avenue, designated 11/14/95
28. Elk's Lodge, 1222 I Street, designated 4/2/96
29. First Church of Christ Scientist, 1328 H Street, designated 10/8/96
30. Acacia Memorial Park, 801 Scenic Drive, designated 12/3/96
31. Modesto Pioneer Cemetery, 905 Scenic Drive, designated 12/3/96
32. Modesto Cemetery, 1001 Scenic Drive, designated 12/3/96
33. St. Stanislaus Catholic Cemetery, 1141 Scenic Drive, designated 12/3/96
34. Stanislaus County Cemetery, 1001 Scenic Drive, designated 12/3/96
35. Dr. Donald Robertson Home, 211 Elmwood Court, designated 12/3/96
36. City's Christmas Tree, 19th/H/La Loma Streets, designated 3/25/97
37. Stanley Home, 225 Stoddard Avenue, designated 6/24/97
38. John M. Walthall Home, 118 Sycamore Avenue, designated 6/24/97
39. Pacific Telephone Building, 1012 11th Street, designated 10/14/97
40. Gundlach Residence, 410 Elmwood Avenue, designated 11/12/97
41. Lish Residence, 125 Poplar Avenue, designated 3/24/98
42. Guzman Residence, 215 Stoddard Avenue, designated 3/24/98

43. Ayres Residence, 319 Elmwood Avenue, designated 3/24/98
44. Harris Home, 230 Sycamore Avenue, designated 5/19/98
45. Large Valley Oak Tree, Tuolumne River Regional Park, designated 7/14/98
46. Bunya Bunya Tree, Graceada Park, designated 11/10/98
47. Balmannos Residence, 207 Elmwood Court, designated 5/4/99
48. Cadrett Residence, 201 Hintze Avenue, designated 7/27/99
49. Montrie & Robinson Residence, 1001 Magnolia Avenue, designated 7/27/99
50. Anderson Residence, 501 Magnolia Avenue, designated 8/24/99
51. Scully Residence, 124 Sycamore Avenue, designated 10/10/00
52. Municipal Golf Course, 400 Tuolumne Boulevard, designated 3/27/01
53. Foy Apartments, 1418–1430 I Street, designated 2/26/02
54. Centenary Methodist Church, 201 Needham Street, designated 5/14/02
55. McDonald Residence (historic name “Johnson House”), 503 West Morris Avenue, designated 8/6/03
56. Draizen Residence (historic name “Dr. J. C. Robertson House”), 215 Elmwood Court, designated 3/22/05
57. Lundgren House, 218 Elmwood Court, designated 12/15/06
58. Silva House, 216 West Morris Avenue, designated 6/12/07

(1) Downtown Redevelopment Area

The Modesto Landmark Preservation Commission reviewed the survey of downtown properties prepared by Carey & Company in 1997, which ranked each property in the Downtown Redevelopment Area according to the NRHP survey codes. The Commission determined that those properties that are in categories 1, 2, and 3 should be considered to have a significant level of historical significance for CEQA purposes. These would include sites with the following status:

1. Listed in the National Register
2. Determined eligible for the National Register in a formal process involving federal agencies
3. Appears eligible for listing in the National Register in the judgment of the person(s) completing or reviewing the form

As of August 2001 there are 15 sites in the Downtown Redevelopment Area rated 1, 2, and 3 (pursuant to the National Register of Historic Preservation Status Code) that have been determined to be of historical interest by the Landmark Preservation Commission and the Redevelopment Agency:

1. Southern Pacific Transportation Center, 9th & J Streets, Rating: 1

2. McHenry Mansion, 906 15th Street, Rating: 1
3. Federal Building (Post Office), 1125 I Street, Rating: 1
4. Modesto City Fire Department No. 1, 610 11th Street, Rating: 3
5. Davis-Hatton House, 909 14th Street, Rating: 3
6. Abel & Ellman Office, 1015 14th Street, Rating: 3
7. Cressey Home, 915–917 17th Street, Rating: 3
8. First United Methodist Church, 850 16th Street, Rating: 3
9. McHenry Museum, 1402 I Street, Rating: 3
10. Teamster' Hall, 1222 I Street, Rating: 3
11. Modesto Arch, 9th and I Streets, Rating: 3
12. St. Stanislaus Catholic Church, 709 J Street, Rating: 3
13. Beatty Building, 1024 J Street, Rating: 3
14. State Theater, 1307 J Street, Rating: 3
15. Modesto Water Pump Station No. 9, 10th and Needham Streets, Rating: 3

See Appendix G for a map and detailed listing of Designated Landmark Preservation sites and photographs of the Carey & Co. Inc. Number 1, 2, and 3 rated sites in downtown Modesto.

9. Existing Regulatory Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local (County and City) policies or summaries of policies in effect that apply to the study area. This list covers the full range of applicable policies that a project within the study area would potentially need to comply with, including those beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR was analyzed.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Archaeological Historical policies are designated as AH-*X*, where *X* is the discrete number).

a. Federal Regulations

The National Historic Preservation Act (NHPA) establishes the framework for the protection of historic and cultural resources. It applies to federal activities and has limited application to state or local actions. Its influence is most commonly felt at the state and local level when a state or local agency is seeking federal funding and the federal lead agency is subject to Section 106 regulations, or when the state or local agency is determining the significance of cultural resources under CEQA. The CRHR recognizes the significance of resources listed on the NRHP and its qualifying criteria are similar to those of the NRHP. Resources listed in

the NRHP are therefore afforded the same status under CEQA as state-listed resources. That is, a substantial adverse change in the significance of a listed resource is considered a significant effect under CEQA.

The following discussion provides some additional information on the NHPA.

Section 106 of the NHPA requires that projects receiving federal money or approved by federal agencies must take into account the effects of the undertaking on historic properties and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on these actions. The NHPA also requires that federal agency heads, to the maximum extent possible, undertake such planning and actions as may be necessary to minimize harm to resources listed in or eligible for listing in the NRHP. The federal agency is required to identify historic properties, assess the effects on them, and consider alternatives to avoid or reduce these effects. The agency is then required to consult with the State Historic Preservation Officer (SHPO) on its findings.

Section 106 review is typically undertaken as part of the federal NEPA process but may also be completed separate from NEPA review. The Section 106 process has five basic steps:

1. identify and evaluate historic properties;
2. assess effects of the project on historic properties;
3. consult with the SHPO regarding adverse effects on historic properties, resulting in a Memorandum of Agreement (MOA);
4. submit the MOA to the ACHP; and
5. proceed in accordance with the MOA.

The NRHP was established to recognize resources associated with the country's history and heritage. Guidelines for nomination are based on significance in American history, architecture, archaeology, engineering, and culture. Under federal regulations, a project has an effect on a historic property when the undertaking could alter the characteristics that may qualify the property for inclusion in the NRHP, including alteration of location, setting, or use. An undertaking may be considered to have an adverse effect on a historic property when the effect may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

Adverse effects on historic properties include but are not limited to the following:

1. physical destruction or alteration of all or part of the property;
2. isolation of the property from or alteration of the property's setting when that characteristic contributes to the property's qualifications for listing in the NRHP;
3. introduction of visual, audible, or atmospheric elements that are out of character with the property or that alter its setting;
4. neglect of a property resulting in its deterioration or destruction; or
5. transfer, lease, or sale of the property. (36 CFR 800.9.)

Projects requiring federal permits (such as a permit under the California Water Authority) or funding are subject to the requirements of Section 106. The lead federal agency is

responsible for compliance with Section 106, but the actual tasks needed for compliance may be delegated to others.

b. State Policies

The CRHR serves as a guide to some of the historic resources that are to be considered when there is a discretionary action subject to CEQA. Any resource that is listed in or eligible for listing in the CRHR is to be considered under CEQA. Therefore, the lead agency on a project must determine not only if the resource is listed, but also if it is eligible for listing. Resources may be included in the CRHR in three ways.

1. Some are listed automatically, including California State Historical Landmarks from number 770 onward and all properties listed in, or formally determined eligible for, the NRHP.
2. State Historical Landmarks below number 770 and State Points of Historical Interest will be individually evaluated and recommended for listing in the CRHR based on procedures to be developed by the State Historical Resources Commission.
3. Other resources can be nominated to the CRHR by local governments, private organizations, or citizens; these include individual resources, historical resources contributing to the significance of a historical district, resources identified in a historical resources survey with a significance rating of 1 to 5, and resources designated as local landmarks or listed by City or County ordinance.

To be eligible for California State Landmark registration, a cultural resource must have statewide significance as the first, only, or most significant of a type in a region; be associated with an individual who has had a profound influence on the history of California; or have architectural significance. The structure must also be visible and accessible to the public and must be maintained by the owner in its historic style (California State Landmarks Board).

The criteria for governing California State Points of Historical Interest are generally the same as those which govern state landmarks, but are oriented to local, city, or county areas. Points of Historical Interest should be significant to the county or local area's social, cultural, economical, political, religious, or military history (California State Landmarks Board).

CEQA is the primary mandate governing projects under state jurisdiction that may affect cultural resources. Other laws governing cultural resources that may also pertain include Public Resources Code (PRC) Section 97.9 et seq. (Native American Heritage) and Health and Human Safety Code 7050.5 et seq. (Human Remains). Records about Native American graves, cemeteries, and sacred places, as well as information about the location of archaeological sites, are exempt from being disclosed to the public under California's equivalent of the Freedom of Information Act (also known as "Sunshine Laws") (California Government Code [CGC] 6254.10). Such information is considered sensitive and confidential, and should not be contained in a public document.

(1) California Environmental Quality Act

CEQA requires that public agencies assess the effects on historical resources of public or private projects the agencies finance or approve. Historical resources are defined as buildings, sites, structures, objects, or districts that may have historical, architectural, archaeological, cultural, or scientific significance. CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of a historical resource, alternative plans or mitigation measures must be considered. However, only significant historical resources need to be addressed. Therefore, before the assessment of effects or development of mitigation measures, the significance of cultural resources must be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

1. identify potential historical resources,
2. evaluate the eligibility of historical resources, and
3. evaluate the effects of the project on all eligible historical resources.

The State CEQA Guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review:

1. The resource is listed in or determined eligible for listing in the CRHR.
2. The resource is included in a local register of historical resources, as defined in PRC Section 5020.1(k), or identified as significant in a historical resource survey that meets the requirements of PRC Section 5024.1(g), unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (State CEQA Guidelines 15064.5[a]).

These conditions are related to the eligibility criteria for inclusion in the CRHR (PRC Sections 5020.1[k], 5024.1, 5024.1[g]). A cultural resource may be eligible for inclusion in the CRHR if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

In addition, properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR and thus are significant historical resources for the purposes of CEQA (PRC Section 5024.1[d][1]).

According to CEQA, a project may cause a substantial adverse change in the significance of a historical resource and thus may have a significant impact on the

environment (State CEQA Guidelines 15064.5[b]). CEQA also states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter the physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Unique Archaeological Resource

CEQA (PRC Section 21083.2) states that a unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

- contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- is directly associated with a scientifically recognized important prehistoric or historic event or person.

(2) California Government Code 65352.3-5 (Senate Bill 18): Local Government–Tribal Consultation

CGC Section 65352.3-5, formerly known as Senate Bill (SB) 18, states that before adoption or amendment of a city or county general plan or specific plan, the city or county shall consult with California Native American tribes that are on the contact list maintained by the Native American Heritage Commission (NAHC). This legislation is intended to preserve or mitigate impacts on places, features, and objects, as defined in PRC Sections 5097.9 and 5097.993, that are located within the city's or county's jurisdiction. The bill also states that the city or county shall protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects identified by Native American consultation. CGC 65362.3-5 applies to all general and specific plans and amendments proposed after March 1, 2005. The process for consultation under SB 18 is apart from CEQA, but can occur simultaneously.

AH-1: CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of a historical resource, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed. Therefore, prior to the assessment of effects or the development of mitigation measures, the significance of cultural resources must first be determined. The steps that are normally taken in a cultural resources investigation for CEQA compliance are as follows:

1. Identify potential historical resources, based on the criteria discussed above.

2. Evaluate the eligibility of unlisted historical resources for listing in either the CRHR or NRHP.
3. Evaluate the effects of a project on all eligible historical resources.

A project that would demolish, destroy, or otherwise adversely affect the identified resource cannot proceed until a final Environmental Impact Report (EIR) is prepared and adopted by the public agency. The EIR must identify mitigation measures and consider alternatives that would reduce or avoid the adverse effect.

AH-2: According to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment (State CEQA Guidelines Section 15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Actions that would materially impair the significance of a historic resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the CRHR (California Register of Historic Resources) or in a local register or survey that meet the requirements of Sections 5020.1(k) and 5024.1(g) of the Public Resources Code. When determining what is a significant resource, CEQA presumes that any resource listed in or eligible for listing in the CRHR or NRHP is significant, creates a rebuttable presumption that any resource that is on a local list is significant, and allows a public agency to decide that other resources may also be significant. (CEQA Guidelines Section 15064.5)

c. Stanislaus County General Plan Policies

There are no applicable Stanislaus County General Plan policies.

d. City of Modesto Policies

AH-3: The City of Modesto Landmark Preservation Ordinance establishes the recognition, preservation, enhancement, perpetuation, and use of structures, natural features, sites, and areas within the City of Modesto that have historic, architectural, archaeological, structural engineering, or aesthetic significance. The eligibility of a site is determined after public hearings by Modesto Landmark Preservation Commission recommendation, plus public hearing and final determination by the City Council (Municipal Ordinance No. 2619).

(1) Redevelopment Area, Baseline Developed Area, and Planned Urbanizing Area

AH-4: The City of Modesto shall implement regulations that identify important historic resources, and preserve the important aspects of those resources. The City could encourage adaptive reuse of National Register of Historic Places (NRHP) and California Register of Historic Resources (CRHR) eligible or potentially eligible buildings, including historically sensitive restoration, as a means of preserving eligible structures. Restoration and renovation of buildings should be performed in accordance with the "Secretary of the Interior's Standards for the Treatment of Historic Properties"

and the State Historic Building Code. The standards serve as guidelines for rehabilitation, restoration, preservation, retaining, and preserving historic character of a property. (UAGP Policy VII.F.2[a])

AH-5: The City shall ensure that zoning provisions for structures of historical significance are sufficiently flexible to ensure that parking or other structures requirements of the Zoning Ordinance allow the historic structures to remain viable in the future. (UAGP Policy VII.F.2[b])

AH-6: The modification of historic structures and places can be mitigated through the application of existing regulations and consultation with the State Historic Preservation Officer, an interim procedure whereby the City evaluates proposals to modify historic structure and develops a program to reduce the impacts on an individual basis. Projects that require federal funding or permits will be addressed through Section 106 compliance in consultation with SHPO. If the project appears to have impacts on eligible or potentially eligible structures, the project proponent will resolve adverse effects through consultation with the SHPO. Demolition of significant (eligible) buildings and removing landmarks from the Modesto inventory cannot be mitigated to a less than significant level and will require CEQA review. (UAGP Policy VII.F.2[c])

AH-7: When structures or areas of historical significance more than 50 years old are proposed for demolition, alteration, or where construction is proposed within 100 feet of that structure, the applicant shall submit data to the City regarding the structure's history or locations prepared by a qualified architectural historian. The City shall evaluate the historical significance of the proposal and require measures be implemented to preserve all structures and places it deems historically significant. (UAGP Policy VII.F.2[d])

AH-8: As an ongoing measure, the City of Modesto shall maintain professional standard inventories of historic resources, with the findings of those inventories concurred by the SHPO and kept on file with the State Office of Historic Preservation. The records will provide a preliminary assessment of eligibility at the initial study stage to indicate whether CEQA regulations would apply in the case of a project application or whether the resource has previously been determined ineligible. When no previous survey has been conducted, buildings and structures more than 50 years old must be evaluated by a professional historian or architectural historian prior to project approval to determine whether the resource is a historically significant resource, for purposes of CEQA.

When CEQA regulations are applied, the character-defining elements of resources that will be affected should be identified by a qualified architectural historian, qualified City staff member, or other professional qualified under Secretary of Interior Standards to review such projects. It is these elements that are a crucial part of the ability of the resource to convey its historic significance. Projects that would alter character-defining elements would cause a compromise in historic integrity and would constitute a significant impact. Projects that follow Secretary of Interior Standards, in consultation with SHPO, can be considered mitigated to a level of less than significant.

The modification of historic structures and places can be mitigated through the application of existing regulations and consultation with the State Historic Preservation Officer, an interim procedure whereby the City evaluates proposals to modify historic structures and develops a program to reduce the impacts on an individual basis. (UAGP Policy VII.F.2[e])

AH-9: For all proposed development within an archaeological resource study area a combination of archival research, particularly through the Central California Information Center at Turlock, and preliminary surface field reconnaissance as well as consultations with the Native American Heritage Commission (NAHC) and those individuals and organizations identified by the NAHC shall be employed to identify

any areas that may have been used by Native Americans. Areas containing prehistoric deposits shall be recorded and mapped. Only in those areas where proposed development might affect the resources will an evaluation of their significance be necessary. (UAGP Policy VII.F.2[f])

- AH-10:** Prior to the adoption or amendment of the City of Modesto's UAGP, the City shall conduct consultations with the NAHC and those individuals and organizations identified by the NAHC for the purpose of preserving specified places, features, and objects that are located within the City's jurisdiction in compliance with SB 18 of 2005. (UAGP Policy VII.F.2[g])
- AH-11:** If land designated or proposed to be designated for development within the City of Modesto contains a sacred or traditional place, the City shall conduct consultations with the Native American Heritage Commission and the appropriate Native American groups and individuals for the purpose of determining the level of confidentiality required to protect the cultural place and for the purpose of developing treatment with appropriate dignity of the cultural place in any corresponding management plan. Avoid and preserve sacred sites whenever feasible. (UAGP Policy VII.F.2[h])
- AH-12:** Any project subject to CEQA that involves substantial earth-disturbing activities, where excavation/construction would occur outside of areas where previous development has occurred, or where excavation/construction would occur at depths greater than existing foundations, roads and/or trenches in the immediate vicinity, shall require evaluation of the site by a qualified archaeologist retained by the project applicant, which would include at minimum a records search, a Phase I pedestrian survey, and preparation of an archaeological report containing the results of this cultural resources inventory identification effort for submittal to the Central California Information Center. (UAGP Policy VII.F.2[i])
- AH-13:** If Phase II archaeological evaluations are recommended, a report of all such surveys and excavations with recommendations shall be completed prior to Project approval. (UAGP Policy VII.F.2[j])
- AH-14:** Any project that involves earth-disturbing activities shall require consultation by the applicant for the purposes of determining archaeological and cultural resources impacts and creating appropriate mitigation to address such impacts. (UAGP Policy VII.F.2[k])
- AH-15:** Any project that involves earth-disturbing activities within previously undisturbed soils in an area determined to be archaeologically or culturally sensitive by the City of Modesto through consultation with the Project Applicant and a qualified archaeologist shall be subject to archaeological and Native American monitoring during all ground-disturbing activities. (UAGP Policy VII.F.2[l])
- AH-16:** Any project that involves earth-disturbing activities within previously undisturbed soils in an area determined to be archaeologically or culturally sensitive by the City of Modesto through consultation with the Project Applicant and a qualified archaeologist and the Native Americans will be required to have the following mitigation measures, at a minimum:
1. If prehistoric archaeological remains are discovered during the project construction (inadvertent discoveries), all work in the area of the find shall cease, and a qualified archaeologist shall be retained by the project sponsor to investigate the find, and make recommendations as to treatment and mitigation. In the event of the discovery of a burial, human bone or suspected human bone, all excavation or grading in the vicinity of the find shall halt immediately and the area of the find shall be protected and the project applicant immediately shall notify the County Coroner of the find and comply with the provisions of Cal. Health and Safety Code

Section 7050.5, including Cal. Public Resources Code Section 5097.98, if applicable. If human remains are identified, the project sponsor will also retain a Native American monitor.

2. A qualified archaeological monitor will be present and will have the authority to stop and redirect grading activities, in consultation with the Native Americans and their designated monitors, to evaluate the significance of any Native American archaeological resources discovered on the property.
3. Native American monitors from the appropriate Native American Tribes, as determined by the Native American Heritage Commission (NAHC) shall be allowed to monitor all groundbreaking activities, including all archaeological testing and data recovery excavations that are likely to affect Native American resources, as determined by a qualified archaeologist. The project proponent will be responsible for compensating Native American monitors. If human remains are discovered, the NAHC will assign a Most Likely Descendent (MLD).
4. The landowner agrees to relinquish ownership of all Native American human remains and associated burial artifacts that are found within the project area, to the appropriate Native American MLD, as assigned by the NAHC, for proper treatment and disposition. The MLD will decide whether standard archaeological analysis will be allowed on human remains and associated artifacts from burials. (UAGP Policy VII.F.2[m])

AH-17: The City of Modesto shall promote historical awareness through provision of educational opportunities for residents of all ages. (UAGP Policy VII.F.2[n])

10. Policies That Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the UAGP area. Federal and state policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed; the full text of these policies is found in Section A-9 above, *Existing Regulatory Policies Applying to the Study Area*.

a. Federal Regulations

Federal regulations limit impacts where projects are undertaken by the federal government, on federal land, with federal funding or federal permitting. There are no federal regulations that directly apply to City activities. In cases where federal funding is being used for City actions, the involved Federal agency will be subject to the NHPA.

b. State Policies

State policies apply when projects are subject to CEQA and require mitigation to be developed if a project would have a potentially significant adverse impact on cultural resources. The following reduce and avoid impacts to cultural resources: AH-1 and AH-2.

c. City of Modesto Policies

The City of Modesto Landmark Preservation Ordinance No. 2619 preserves and enhances structures and natural features with historic or archaeological significance.

The UAGP provides the following policies related to cultural resources in the Redevelopment Area, Baseline Developed Area, and Planned Urbanizing Area: AH-3 through AH-17.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15064.5 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

According to the CEQA, a project with an effect that may cause a substantial adverse change in the significance of historical resources is a project that may have a significant effect on the environment (CEQA rev. 1998 Section 15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Actions that would materially impair the significance of a historic resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meets the requirements of Sections 5020.1(k) and 5024.1(g) of the PRC.

2. Thresholds of Significance Suggested by Other Analytical Methods

a. National Historic Preservation Act

The NHPA establishes eligibility requirements for inclusion on the NRHP as discussed above. Cultural resources that are determined to be eligible for listing on the NRHP are automatically eligible for listing on CRHR and are significant resources under CEQA.

b. State Historic Preservation Office

SHPO coordinates state participation in the implementation of the NHPA by making determinations of eligibility and consulting on federal project undertakings.

c. The Landmark Preservation Commission

The City Landmark Preservation Commission is responsible for the designation of historic landmarks within Modesto. The Landmark Preservation Commission recommends the following be used as the Standard for Local Significance:

Criteria for "Local Significance"

Historical resources shall be deemed of "Local Significance" to the Modesto community if they meet any one of the following criteria.

1. General Criteria

The quality of the information, example, interest or meaning represented by the resource helps the citizens of the present day to understand and appreciate the past culture of the Modesto community or the prehistoric inhabitants of the area.

2. Historic Criteria

The resource is associated with activities, processes, events, trends, or persons of importance to the Modesto community.

3. Architectural Criteria

The resource possesses distinctive characteristics of a style, place, period, method or materials of construction, builder, or architect important to the Modesto community.

4. Cultural Criteria

The resource is located within a significant setting of man-made or natural features (including significant trees or other plant life located thereon), possessing meaning primarily by long association with the Modesto community, prehistoric peoples, or Native Americans.

3. Threshold of Significance Adopted by the City of Modesto

A project completed under the UAGP would have a significant impact on cultural resources if the project:

- results in modification that would result in a substantial adverse change in the significance of the resource or demolition of a listed or eligible historic resource;
- has an adverse effect on any structure more than 50 years old;
- involves the removal of known resources,
- results in discovery of undiscovered archaeological resources, or
- involves construction within an area of high sensitivity.

It would also be significant if it met any of the Landmark Preservation Commission standards described above.

4. Significant Direct Impacts

The accommodation of up to 400,000 residents and 304,000 employees at plan buildout, including about 148,600 residents and 144,000 employees in the Planned Urbanizing Area, could impact prehistoric and historic resources.

Known historical resources are primarily located within the Baseline Developed Area, which is already developed. Impacts of new construction, therefore, apply to development within 100 feet of a structure more than 50 years old because activities may affect that structure. If a site-specific project involves the modification or demolition of a qualifying structure more than 50 years old, the impacts may be significant.

Areas of high probability for archaeological resources are located within the riparian corridors along the Tuolumne River, Dry Creek, and the Stanislaus River. These areas are designated for conservation and recreational use by the UAGP, so the possibility for impact is low. In addition, development within the TRRP Master Plan will be subject to the project-specific mitigation measures identified in that plan's Master EIR. There, the potential impact comes from earthmoving activities that could result in disturbance of resources or human remains. That Master EIR, which is incorporated by reference, has identified mitigation measures to avoid a significant impact (see Appendix F). Development within the other two riparian corridors will similarly be subject to a subsequent environmental analysis and mitigation measures. Impacts within the riparian corridors would be less than significant.

There is a low probability that archaeological resources will be uncovered in areas outside of the riparian corridors when soils are excavated as a result of construction activities. Should this occur, it would have a significant effect.

The City Zoning Ordinance requires that when substantial changes to a structure are proposed, the development will be required to comply with other Zoning Ordinance provisions such as parking or landscaping requirements. This could result in modifications to the structure which substantially reduce its historical significance. This would be a less-than-significant impact with the imposition of Policies AH-4 through AH-8. Demolition of a significant building cannot be mitigated to a less-than-significant level, and, even with implementation of mitigation measures, the impact would be significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of significant cumulative environmental effects, of whether the project will make a cumulatively considerable contribution to any such effects, and, if so, any mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project which has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation

measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

Given the magnitude of this project and the thorough analysis undertaken by the City of Modesto in the preparation of its 1995 UAGP, the direct impacts described in this section are the same as “cumulative impacts” as described in Section 15126(e) of the State CEQA Guidelines. No further mitigation is required for cumulative impacts, and cumulative impact analysis for prehistoric and historic resources will not be required for any anticipated subsequent projects that require a Mitigated Negative Declaration (Section 21157.5) or a Focused EIR (Section 21158). The project will not make a considerable contribution to a cumulative impact.

6. Impacts for Which There Is Insufficient Information to Support a Full Analysis

Implementation of the UAGP would involve subsequent projects, in addition to the development of the land uses designated in the UAGP, which could result in impacts on archaeological or historical sites. These projects would include, among other actions, construction of new roadways or roadway widening, installation of new infrastructure (e.g., water and sewer lines), and construction of new public facilities. The types of impacts that these subsequent site-specific projects would have on cultural resources include damage to or destruction of known and unknown archaeological sites, and damage to buildings and sites of known or potential historic significance.

Because the details of the subsequent projects are not known, the site-specific impacts of the projects cannot be fully disclosed at this time. If there are impacts in addition to those described above, additional environmental review would be required for specific subsequent projects.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures That Mitigate Direct Impacts

The mitigation measures have been adopted as UAGP policies. These are described in AH-3 through AH-17 above. In addition, the City has adopted procedures for mitigating impacts on cultural resources, as shown in Table V-8-1 below. These policies will reduce the project’s impacts to a less-than-significant level except when a significant historic building would be demolished.

Table V-8-1. Procedures for Mitigating and Monitoring Impacts on Cultural Resources

(Note: This table does not use the standard nomenclature in order to be consistent with the reference contained in the UAGP.)

- a. Whenever possible, the city shall avoid disturbing or damaging archaeological resources. Preservation in place to maintain the relationship between the artifacts and the archaeological context is the preferred manner of mitigating impacts to archaeological sites. Preservation may be accomplished by:
 1. planning construction to avoid archaeological sites;

<ol style="list-style-type: none"> 2. incorporating sites within parks, green space, or other open space; 3. covering the sites with a layer of chemically stable soil; 4. deeding the site into a permanent conservation easement. <p>When in-place mitigation is not feasible, data recovery through excavation may be necessary. A data recovery plan, which makes provisions for adequately recovering the scientifically consequential information about the site, shall be prepared and adopted prior to any excavation being undertaken. Such studies must be deposited with the Central California Information Center in Turlock, California. Special rules apply to any archaeological sites known to contain human remains (Health and Safety Code Section 7050.5; Guidelines Section 15126.4[b]).</p> <p>Data recovery shall not be required if the lead agency determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in another EIR and are available for review at the California Historical Resource Regional Information Center (Guidelines Section 15126.4[b]).</p>
<ol style="list-style-type: none"> b. Prior to excavation and construction, the prime construction contractor and any subcontractors shall be cautioned on the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, or other cultural materials from the project area.
<ol style="list-style-type: none"> c. The project sponsor shall identify a qualified archaeologist prior to any demolition, excavation, or construction. The City will approve the project sponsor's selection of a qualified archaeologist. The archaeologist would have the authority to temporarily halt excavation and construction activities in the immediate vicinity (ten-meter radius) of a find if significant or potentially significant cultural resources are exposed and/or adversely affected by construction operations.
<ol style="list-style-type: none"> d. Reasonable time shall be allowed for the qualified archaeologist to notify the proper authorities for a more detailed inspection and examination of the exposed cultural resources. During this time, excavation and construction would not be allowed in the immediate vicinity of the find; however, those activities could continue in other areas of the project site.
<ol style="list-style-type: none"> e. If any find is determined to be significant by the qualified archaeologist, representatives of the construction contractor and the City, the qualified archaeologist, and a representative of the Native American community (if the discovery is an aboriginal burial) would meet to determine the appropriate course of action.
<ol style="list-style-type: none"> f. All cultural materials recovered as part of a monitoring program would be subject to scientific analysis, professional museum curation, and a report prepared according to current professional standards.

2. Measures That Mitigate Cumulative Impacts

The direct impacts are considered the same as "cumulative impacts," as described in Section 15126(e) of the State CEQA Guidelines. No further mitigation is required for cumulative impacts, and cumulative impact analysis for prehistoric and historic resources will not be required for any anticipated subsequent projects that require a Mitigated Negative Declaration (Section 21157.5) or a Focused EIR (Section 21158).

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

None of the alternatives analyzed would substantially reduce the project's potential impact on cultural resources. New policies would protect more resources, and narrower arterials would have less potential to adversely affect historic structures

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 211081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

Implementation of the UAGP would involve subsequent projects, in addition to the development of the land uses designated in the UAGP, which could result in impacts on archaeological or historical sites. Evaluation of subsequent projects will follow the same guidelines of historic preservation law, provided that the laws do not change. If the city adopts its own criteria for historic significance, and those criteria meet CEQA standards and are approved by the SHPO, those criteria may be used in place of current CEQA standards.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances continue:

1. The lead agency for subsequent projects is the City of Modesto or any responsible agency identified in the Master EIR.
2. The above-mentioned policies are in force.
3. The Master EIR continues to be reviewed on a regular basis per PRC Section 21157.6 to ensure that changes to historic preservation law and other laws are incorporated into the City's policies.

Section 9

Increased Demand for Storm Drainage

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect demand for storm drainage. If significant impacts are found, mitigation measures are provided to reduce those impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on demand for storm drainage is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the UAGP and City's draft *Storm Drainage Master Plan*. The study area for cumulative impacts on demand for storm drainage is the City's planning area.

3. Existing Physical Conditions in the Study Area

a. Overview

Storm water drainage systems are designed primarily to convey runoff that occurs during storm events. Impervious surfaces collect and concentrate stormwater discharges to various drainage systems. To a lesser extent, the drainage systems also help to dispose of excess water generated from urban uses such as street sweeping, residential watering, and other activities that generate runoff during drier months of the year. The proper control of stormwater runoff is important to reduce adverse effects from increased flooding, erosion, and transport of pollutants. The city is currently requiring developers to implement the concepts of Low Impact Development (LID) for all new development and redevelopment projects, as established in the City's *Guidance Manual for New Development Stormwater Quality Control Measures*. LID uses a variety of mechanisms to retain as much stormwater runoff on each individual site as possible. Runoff is infiltrated through the use of swales, vegetation, pervious pavement, French drains, rockwells, and other methods.

Storm drainage infrastructure in the Modesto urban area consists of numerous rockwells and “positive” stormwater drainage facilities. (A *positive* stormwater drainage system refers to the collection and conveyance of storm water in centralized storage and discharge locations through the use of catch basins, pipelines, recharge/detention basins, and pumping facilities.) Approximately two-thirds of the baseline developed area (including the Redevelopment Area) is served by rockwells that are designed to collect surface stormwater runoff and allow it to infiltrate to the groundwater. Approximately one-third of the area is served by positive stormwater drainage systems that convey runoff to localized detention basins, constructed drainage ways, or stream channels.

Rockwells are rock-lined holes that are typically 6 feet in diameter and up to 50 feet deep. There are approximately 7,200 public and 2,000 private rockwells in Modesto. The rockwells are generally unable to accommodate the amount of drainage generated in the existing developed areas. In addition, the cost of maintenance for rockwells is high and the U.S. Environmental Protection Agency (EPA) regulations for rockwells are becoming more stringent. Consequently, the City is generally requiring positive stormwater systems to be installed in the existing urban areas. Rockwells are not being constructed in new developing areas and these areas must be served by positive stormwater drainage systems. The City provides upgrades to storm drainage capacity on an as-needed basis.

The City monitoring and reporting program for the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) permit is issued pursuant to Water Code Section 13267. The MS4 permit and monitoring and reporting program are responsible for assessing the point-source runoff from the City. The City’s drainage facilities are unique since only one-third of the City drains into surface water while the remaining drainages go to rock wells. The MS4 permit and monitoring and reporting program apply to both water quality and drainage for the City. Besides including a comprehensive assessment of water quality data, the Comprehensive Monitoring Report also identifies Best Management Practices (BMPs) contained in the drainage facilities that help reduce pollutant loading.

The City was also required to do a Peak Discharge Impact Study (PDIS) as part of the MS4 Permit that was due on April 1st, 2004. The purpose of the PDIS was to determine the extent of erosion of the natural streams from the City stormwater runoff.

Section V-10, *Flooding and Water Quality*, provides a discussion of EPA policies and the Central Valley Regional Water Quality Control Board (Central Valley RWQCB) administration of the NPDES permitting program which governs the City’s pollution control and management programs for stormwater discharges throughout the urban area. Section V-10 also describes the EPA’s Underground Injection Control (UIC) program, which governs stormwater quality management policies for the numerous rockwells located throughout the City of Modesto.

Plans and specifications for new stormwater facilities within the city are reviewed and approved by the Community and Economic Development Department. Development of storm drainage facilities will be in compliance with the requirements for the installation of BMPs as defined in the City’s Comprehensive Stormwater Management Program (CSMP), *Guidance Manual for New Development Stormwater Quality Control Measures* and as outlined in the City’s *Design Standards for Dual Use Flood Control/Recreation Facilities*, adopted December 12, 2000.

b. Physical Conditions

The Tuolumne River and Dry Creek receive a large fraction of stormwater runoff from the Modesto urban area. Storm water is also drained to Modesto Irrigation District (MID) canals located north of the Tuolumne River. Stormwater drainage south of the Tuolumne River is discharged to outfalls along the Tuolumne River; Turlock Irrigation District (TID) facilities located in the Ceres area are not currently used for storm drainage. The MID and TID facilities generally convey drainage west to downstream locations along the Tuolumne River and the San Joaquin River.

There is a finite existing capacity for MID canals to convey storm drainage because the canal systems were designed primarily to convey irrigation water. Consequently, canal capacities for flow conveyance are larger near the eastern edge of the county, where the irrigation water originates and is reduced near the western edge where the terminal agricultural water users are located. Therefore, the suitability of the canal systems for stormwater conveyance contrasts with the needs of urban area stormwater systems that generate more flow in the downstream direction as more and more stormwater discharges are contributed to the channels.

During the winter rainfall season, capacity in some parts of the MID canal system can be limited for acceptance of storm drainage (Ketscher pers. comm.; Gilton pers. comm.). The City generally regulates its discharges to the MID facilities by controlling the pumping systems at detention/retention-pond discharge locations. The City of Modesto controls the amount of urban storm drainage entering the channels through the operations of pumping stations that discharge flow from the surrounding landscape into the channels. MID staff will request curtailment of pumping by the City before the canals reach their capacity. MID now requires high water level monitoring and shut off sensors to be installed in City storm water discharge pumping stations that discharge to MID canals to help avoid exceeding the capacity of canals.

The City is currently completing a *Stormwater Master Plan* that will describe the schematic layout of future storm drainage systems in all of the Planned Urbanizing Area (Gilton pers. comm.). In addition, the City is participating with MID and other local agencies on the preparation of an *Integrated Water Resources Management Plan* that will address water resources planning and management in the region for surface water, groundwater, wastewater, and storm drainage.

MID and TID both require the City and all other parties who wish to use their facilities for disposal of excess storm drainage to enter into drainage agreements for the use of their canal facilities. The drainage agreements serve to account for the projected drainage contributions and ensure that design and installation of the needed facilities are coordinated among the responsible parties.

4. Existing Policies Applying to the Study Area

Following is a comprehensive list of major federal, state, and local policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies

beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master Environmental Impact Report (Master EIR) analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Storm Drainage policies are designated as SD-*X*, where *X* is the discrete number).

a. Federal Regulations

There are no federal regulations governing drainage systems other than those related to water quality.

b. State Policies

There are no state regulations governing drainage systems other than those related to water quality.

c. Stanislaus County Policies

SD-1: The Stanislaus County Department of Public Works reviews and approves drainage plans involving County roadways that may pass through the Modesto urban area. The *Storm Drainage Master Plan* for Stanislaus County addresses storm drainage issues within the county.

d. City of Modesto Policies

The UAGP provides the following policies related to storm drainage.

(1) Baseline Developed Area

SD-2: One-third of the Baseline Developed Area is served by “rockwells. New rockwells shall be allowed only under very limited circumstances. New storm drainage in the Baseline Developed Area shall be by means of positive storm drainage systems unless otherwise approved by the City Engineer.

The new storm drainage facilities shall consider the drainage facility requirements presented in Table V-9-1 of the Final Master Environmental Impact Report and the SDMP. This policy applies to both positive storm drainage systems and to new rockwells (which are generally discouraged) in the Baseline Developed Area. (UAGP Policy V-E.3[a])

SD-3: MID shall be consulted during the preparation of drainage studies required by this General Plan. (UAGP Policy V-E.3[b])

- SD-4:** The City shall prevent water pollution from urban storm runoff as established by the Central Valley Regional Water Quality Control Board Basin Plan for surface discharges and the Environmental Protection Agency for underground injection. (UAGP Policy V-E.3[c])
- SD-5:** Storm water drainage facilities shall be constructed, operated, maintained and replaced in a manner that will provide the best possible service to the public, as required by federal and state laws and regulations. In developing implementation plans, consideration shall be given to rehabilitation of existing facilities, remediation of developed areas with inadequate levels of drainage service, and the timely expansion of the system for future development. (UAGP Policy V-E.3[d])
- SD-6:** The City shall update and maintain its Storm Drainage Master Plan to cover the entire area within the City's Sphere of Influence. The City of Modesto shall adopt the Storm Drainage Master Plan, in consultation with Stanislaus County, MID, and TID, to address the projected cumulative flows that would be discharged to MID and TID facilities from the urbanized drainage areas. The master drainage program should include the procedures for planning, evaluation, and design of necessary stormwater drainage facilities to ensure that facilities are capable of accommodating the additional flows. The master drainage program should include capital improvement, operations, and maintenance-financing plans necessary to ensure that facilities are constructed in a timely fashion to reduce the impacts from potential flooding problems. (UAGP Policy V-E.3[e])
- SD-7:** New development shall comply with City requirements for conveyance, retention and detention. New development shall include onsite storage of stormwater as necessary. Rockwells shall not be allowed for new development except at infill areas smaller than three acres where no other feasible alternative is available. (UAGP Policy V-E.3[f])
- SD-8:** The City Engineer may require storm water drainage infrastructure master plans for the public infrastructure or when otherwise pertinent to provision of service at adopted service levels for the specific plan areas or other projects depending upon site issues and location. (UAGP Policy V-E.3[g])
- SD-9:** Construction activities shall comply with the requirements of the City's Storm Water Management Plan under its municipal NPDES stormwater permit, and the State Water Resources Control Board's General Permit for Discharges of Storm Water Associated with Construction Activity. (UAGP Policy V-E.3[h])
- SD-10:** For developments within a mapped 100-year floodplain, studies shall be prepared that demonstrate how the development will comply with the both the construction and post-construction programs under the City's municipal NPDES permit. Developments in these areas shall not lead to increased erosion or releases of other contaminants that would cause violations of the City's municipal NPDES permit. (UAGP Policy V-E.3[i])
- SD-11:** The City shall ensure that new development complies with the City of Modesto's *Stormwater Management Program: Guidance Manual for New Development Stormwater Quality Control Measures*. (UAGP Policy V-E.3[j])

(2) Planned Urbanizing Area

- SD-12:** All of the Storm Water Drainage Policies for the Baseline Developed Area apply within the Planned Urbanizing Area. (UAGP Policy V-E.4[a])
- SD-13:** The City of Modesto shall require each new development area to be served with positive storm drainage systems. A positive drainage system may be comprised of

catch basins, pipelines, channels, recharge/detention basins and pumping facilities which discharge storm water to surface waters. New detention basins must include new technologies in their design that allow for full, healthy and sustainable landscaping. The City of Modesto *Design Standards for Dual Use Flood Control / Recreation Facilities* manual is the guiding document for the development of these facilities. The positive storm drainage facilities shall consider the requirements presented in Table V-9-1 of the Final Master Environmental Impact Report and the SDMP. (UAGP Policy V-E.4[b])

- SD-14:** The City of Modesto shall require positive storm drainage facilities in the Planned Urbanizing Area. Recharge shall be typically accomplished at recharge/detention basins, designed to be in compliance with applicable federal and state water quality regulations for both groundwater and surface water. (UAGP Policy V-E.4[c])
- SD-15:** Where feasible, dual-use flood control/recreation facilities shall be developed (dual-use facilities) as part of the storm drainage system. Dual use facilities maximize efficient use of land and funds by satisfying needs for water quality, flood control, recreation and aesthetics within a single consolidated facility. (UAGP Policy V-E.4[d])
- SD-16:** Dual-use facilities shall be designed and constructed in accordance with the standards in the City of Modesto's *Design Standards for Dual Use Flood Control/Recreation Facilities* manual and the Open Space and Parks/Planned Urbanizing Area Policy e. (UAGP Policy V-E.4[e])
- SD-17:** New developments shall be required to implement an appropriate selection of permanent pollution control measures in accordance with the City's implementation policies for the municipal NPDES stormwater permit. Permanent erosion control measures such as seeding and planting vegetation for new cut-and-fill slopes, directing runoff through vegetation, or otherwise reducing the offsite discharge of particulates and sediment will control offsite discharges of urban pollutants. (UAGP Policy V-E.4[f])

The following tables identify standards referenced in the UAGP that will apply to future development.

Table V-9-1. Requirements for Drainage Plans

(Note: This table does not use the standard nomenclature found elsewhere in this document in order to be consistent with the reference contained in the UAGP.)

a.	The plan shall be based on a drainage study prepared by a qualified engineer and shall be implemented in all construction projects where the drainage study indicates a need.
b.	The drainage study shall identify 100-year flood elevations before and after development, location and available capacity of any existing drainage systems, and the volume and rate of water flows created by the proposed project during the 100-year storm.
c.	The study shall also provide the location and capacity of retention/detention basins and/or drainage channels to accommodate the increment in water flows and siltation created by the project.
d.	The plan shall include water quality control measures to ensure minimized contaminants in waters discharged to surface streams or percolated into the ground.
e.	The water quality control measures shall address both construction and operation periods.
f.	The plan shall be implemented in the proposed project prior to occupancy permit issuance and during the life of the project.

g.	Fluvial erosion related to construction is controlled by a construction erosion control program that shall be filed with the City Department of Public Works office and kept current throughout any site development phase.
h.	The erosion control program shall include BMPs as appropriate, given the specific circumstances of the site and/or project. The City shall consult Table 9-2 in the Master EIR for examples of BMPs.
i.	Sediment control basins to capture eroded sediments and contain them on the project sites shall incorporate design criteria listed in Table 9-3 in the Master EIR.
j.	A stormwater management program (SWMP) shall be prepared for the operation of all proposed land development projects and shall be utilized to obtain an NPDES permit and be incorporated into the Drainage Plan. The SWMP shall utilize measures selected from Table 9-4 in the Master EIR.

Table V-9-2. Examples of Best Management Practices

(Note: This table does not use the standard nomenclature in order to be consistent with the reference contained in the UAGP.)

a.	Minimize long, unbroken flow paths by placing transverse sandbag lines across flow paths.
b.	Make drainage swales broad and flat to reduce hydraulic efficiency.
c.	Control offsite drainage and route it around newly graded areas.
d.	Provide berms along the tops of slopes to prevent water from running uncontrolled down the slopes.
e.	Collect the water in these berms and take it down the slopes in an erosion-proof system.
f.	Provide energy dissipaters and erosion control pads at the bottom of downdrains.
g.	Direct site drainage into a sediment control basin before releasing it from the site.
h.	Install permanent landscaping, as soon as practical, after the completion of grading.
i.	Maintain facilities in operable condition at all times.
j.	Inspect facilities at the end of each work day to ensure they are ready for service.

Table V-9-3. Design Criteria for Sediment Control Basins

(Note: This table does not use the standard nomenclature in order to be consistent with the reference contained in the UAGP.)

a.	Provide 15 cubic yards of sediment storage per acre of tributary drainage area.
b.	Provide an erosion-proof spillway from the basin to a protected outlet.
c.	Do not provide a drain in the basin since this would allow some sediment to escape.
d.	If site conditions permit, build an oversize basin so it will not have to be cleaned out during the life of the grading project.
e.	Maintain and clean out basin as necessary.
f.	Inspect basin at end of each work day to assure it is in working order.

Table V-9-4. Measures That Can Be Incorporated into an SWMP

(Note: This table does not use the standard nomenclature in order to be consistent with the reference contained in the UAGP.)

a.	Educate the public regarding the problem of contaminants in urban runoff and solutions they can utilize to reduce the amount of contaminants in urban runoff.
b.	Design projects so that soils with vegetation separate runoff on impermeable surfaces created from hard-lined drainage facilities, and so that impermeable surfaces are minimized.
c.	Promote efficient and safe housekeeping practices when handling fertilizers, pesticides, cleaning solutions, paint products, automotive products, and swimming pool chemicals. These substances should be utilized and stored according to labels and instructions, and shall not be disposed of in a manner that will allow them to contaminate storm flows.
d.	Minimize the use of and utilize the least harmful fertilizers, pesticides, cleaning solutions, automotive and paint products where alternatives exist.
e.	Hazardous materials shall be stored as follows: in the minimum amount necessary; in designated areas; utilizing secondary containment; and shall be subject to regular inspections.
f.	Employees and contractors shall be trained in appropriate storage methods and procedures for cleanup of spills.
g.	Discourage illegal dumping by stenciling elements of the drainage system with a sign prohibiting dumping and indicating the reason for the sign.
h.	Set up or encourage private businesses to set up used-oil disposal facilities that arrange for recycling of bulk used oil.
i.	Project operators shall ensure that vehicle maintenance occurs in appropriate facilities and that spills are reduced, contained, and cleaned up before they contaminate urban runoff.
j.	Discharge of pollutants to storm water from above ground storage tanks shall be minimized by installation of secondary containment, regular inspections, and training in spill cleanup techniques.
k.	Prevent unwarranted physical connections to the storm drain system from sanitary sewer, and floor drains through regulation, inspection, testing, and education.
l.	Identify and repair sewer blockages, infiltration, inflow, and wet weather overflows from sanitary sewers to the stormwater drain system.
m.	Reduce the discharges of pollutants from roadway and parking lot surfaces by conducting street cleaning on a regular basis.
n.	Maintain catch basins and stormwater inlets on a regular basis to remove pollutants and restore basin sediment trapping capacity.
o.	Regularly remove illegally dumped items and materials from storm drainage canals and creeks.
p.	Retention/detention basins and other infiltration devices shall be utilized in drainage systems where conditions permit.
q.	Wet ponds (i.e., permanent water pools used to treat incoming stormwater) or constructed wetlands shall be utilized where warranted and conditions permit.
r.	Vegetated channels and strips shall be incorporated into drainage plans.
s.	Media filtration should be utilized where sediment is a problem and there is no other adequate alternative sediment-control method available.
t.	Oil/water separators shall be installed and maintained in all facilities where automotive maintenance or industrial facilities result in oil release.
u.	Vehicle fueling and washing facilities, including steam cleaning, shall utilize concrete floors, protected from the rain and drained to a sump to assure contaminants are contained.

- | | |
|----|--|
| v. | Outdoor container storage of liquids and outdoor equipment shall include a dike to contain spills and storm water, and be covered to minimize storm water in the area. |
| w. | Materials stored outdoors shall be covered, have secondary equipment and be designed to prevent stormwater runoff. |

5. Policies Which Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area. County policies are included because they reduce or avoid cumulative impacts. The policy reference initials and numbers are listed below; the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. Federal Regulations

Federal regulations, as described above, will avoid or reduce impacts related to drainage water quality: SD-1.

b. City of Modesto Policies

(1) Baseline Developed Area:

Modesto policies ensuring that there will be adequate storm drainage capacity, that MID will be consulted during preparation of additional drainage studies, and for the avoidance of polluted surface discharges are: SD-2 through SD-11.

(2) Planned Urbanizing Area:

Modesto policies addressing these issues within the Planned Urbanizing Area are: SD-12 through SD-17.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

Appendix G of the State CEQA Guidelines is a sample checklist for assessing potential impacts on storm drainage. It offers the following broad suggestions for impact assessment.

- a. Substantially alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site, and
- b. Create or contribute runoff water that would exceed the capacity of existing or planned storm drainage systems or provide substantial additional sources of polluted runoff.

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance are selected.

3. Thresholds of Significance Adopted by the City of Modesto

Impacts will be significant if the project would substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site, or create or contribute runoff water that would exceed the capacity of existing or planned storm drainage systems or provide substantial additional sources of polluted runoff.

4. Significant Direct Impacts

The City must address existing drainage inadequacies in the Baseline Developed Area and Redevelopment Area linked to the historic use of rockwells. In the Planned Urbanizing Area, the emphasis must be on new facilities to serve anticipated urban development. Planned urban development in the Modesto planning area, and the associated increase in impervious areas created by pavement and structures, has the potential to increase the amount of runoff and contribution to storm drainage facilities in the urban area. Because storm drainage occurs on a regular basis during most winter seasons, the City is able to monitor the capacity of storm drainage facilities as new areas are developed.

The potential impacts on storm drainage that could occur from the project were qualitatively evaluated with respect to several factors, including the extent of the projected increase in urban surface area compared to undeveloped ground, the magnitude of projected changes to hydrologic and physical site characteristics of the study area compared to existing conditions, the regulatory criteria and guidelines, and professional judgment. Based on the above threshold of significance, the potential impacts of the UAGP on storm drainage are considered less than significant because the UAGP includes policies that require new development in all three sections of the planning area to install approved drainage facilities.

New development is required under the UAGP to install storm drainage facilities that restrict the amount of post-development runoff from exceeding predevelopment conditions. In the Planned Urbanizing Area, this will include the installation of dual-use facilities that will provide recreational opportunities as well. Additionally, the UAGP includes policies for the City to maintain and upgrade storm drainage facilities as needed. Pursuant to the RWQCB's recent directive to the City to incorporate LID design elements into new development policies, small, onsite infiltration will be utilized wherever possible, allowing large, regional basins and other storm drainage structures to be downsized.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

The population of Stanislaus County is projected to increase in a fashion similar to that of Modesto, resulting in additional urban development and associated increases in impervious areas and associated urban storm drainage. Cumulative hydrologic impacts of stormwater flows from Modesto urban areas and other areas of the county could occur due to the fixed capacity of MID and TID irrigation canals to convey drainage west to the San Joaquin River. If drainage channels in some areas prove insufficient to handle the increased drainage discharges, existing stormwater runoff from urban and agricultural areas during large storm events would have to be interrupted until water levels receded to a point that would allow the resumption of discharges to the channel. Ceasing discharges to drainage channels could cause inundation in and around the drainage conveyance pipeline systems, surface drainage channels, detention basins, and other urban areas. This impact is considered significant.

6. Potential Impacts for Which There is Insufficient Information to Support a Full Analysis

The potential impacts resulting from the construction and operation of specific, future drainage control facilities that will be proposed in the *Storm Drainage Master Plan* cannot be fully assessed at this time.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

Proposed UAGP update policies SD-2 through SD-17 will reduce direct impacts to a less-than-significant level.

2. Measures Which Mitigate Cumulative Impacts

Proposed UAGP update policies SD-2 through SD-17, especially, SD-6, which requires that the City update and maintain its Storm Drainage Master Plan to cover the entire area within the City's Sphere of Influence will reduce the project's contribution to the cumulative drainage impact, but not to a less than cumulatively considerable level.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Alternative 1 would have greater impacts on drainage than the proposed project in that it would not contain the protective policies proposed with the UAGP amendment. The impacts of Alternative 2 would be similar to those of the proposed project. (See Chapter 8, *Alternatives Analysis*, for a detailed discussion of the impacts.)

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on drainage as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City of Modesto or any responsible agency identified in the Master EIR.
2. The following City policies continue to be in force to reduce, avoid, or mitigate impacts.

The analysis contained in this Master EIR assumes that the following City policies, which reduce, avoid or mitigate environmental effects, would continue to be in effect and therefore would be applied to subsequent projects where appropriate. The policy reference initials and numbers are listed; the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

- a. Baseline Developed Area: SD-2 through SD-11.
- b. Planned Urbanizing Area: SD-12 through SD-17.

3. No new significant effect on drainage facilities is identified within the planning area.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond the March 2003 (estimated date of certification General Plan/Master EIR Update) boundaries.
3. No new information, as defined in State CEQA Guidelines Section 15162(a)(3), becomes available pertaining to drainage facilities that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

There are no substantial changes, with respect to the circumstances under which the UAGP is being undertaken, that would require major revisions in the Master EIR resulting in additional significant effects on the environment and new or additional mitigation measures or alternatives that would be required.

Section 10

Flooding and Water Quality

A. ENVIRONMENTAL SETTING

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect flooding and water quality. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

1. Study Area for Direct Impacts

The study area for direct impacts on flooding and water quality is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the California Environmental Quality Act (CEQA) Guidelines. The pertinent plan and projection to be used for this purpose is the Flood Insurance Rate Map (FIRM). The cumulative impact study area for flooding and water quality is the boundaries of Stanislaus County.

3. Existing Physical Conditions in the Study Area

The City of Modesto is located at the confluence of the Tuolumne River and Dry Creek. The Tuolumne drains a 1,800-square-mile watershed, and Dry Creek drains an area of about 190 square miles. The Stanislaus River forms the northern boundary of Stanislaus County, about 7 miles north of this confluence, and drains an area of about 1075 square miles at its intersection with SR 99. The topography is generally flat, with gently sloping lands from east to west toward the San Joaquin River approximately 10 miles west of the city limits. The elevation in the downtown Modesto area is approximately 100 feet above sea level. Annual precipitation is approximately 11.4 inches per year, and occurs mainly from October through May.

The City obtains a portion of its drinking water supplies from Modesto Reservoir and groundwater aquifers that underlie the region. Groundwater conditions of the Turlock and Modesto groundwater basins and the City's management of available drinking water supplies are described in Section V-5 of this document, *Increased Demand for Long-Term Water Supplies*.

a. Area Streams and Watercourses

The flow of the Tuolumne River is regulated by reservoirs and powerplants upstream from Modesto, including Hetch Hetchy Reservoir, owned by the San Francisco Water Department. Don Pedro Reservoir, with a capacity of 2,030,000 acre-feet (af), provides flood control for the Modesto area and is jointly operated by the Modesto Irrigation District (MID) and the Turlock Irrigation District (TID). Modesto Reservoir (29,000 af) and Turlock Lake (49,000 af) receive and store Tuolumne River water via canals. MID and TID own and operate major surface irrigation water canals in the region with hundreds of miles of laterals to provide water service to large agricultural service areas.

b. Flooding and Drainage

The Tuolumne, Stanislaus, and Merced Rivers all have extensively mapped, designated 100-year and 500-year floodplains. Due to the level topography of the region, the floodplain generally occupies a confined area that follows the river channel, ranging from several hundred yards to 1.5 miles wide. There are no federal flood control facilities in the Modesto urban area.

The Tuolumne River experienced severe flooding during the storms of January 1997 and established a new record height at 71.2 feet from data extending back to 1897 (U.S. Army Corps of Engineers 1999). Although inflows to Don Pedro Reservoir were record-setting, the peak flow on January 4, 1997, of 55,800 cubic feet per second (cfs) in downtown Modesto, was slightly lower than the peak flow of 57,000 cfs recorded in 1950 prior to the new Don Pedro dam being constructed. Floodplain and habitat on a 5-mile reach of the Tuolumne River below Don Pedro Reservoir was severely damaged during the January 1997 flooding. Levees were breached, and surrounding land and gravel operations were engulfed by what has become a new channel for the Tuolumne River (California Department of Water Resources 1997).

Extensive flooding also occurred in urban areas of Modesto adjacent to the main river channel. The objective flow downstream from Don Pedro Reservoir is 9,000 cfs. This provides protection from a flood that would be projected to occur only once in every 55 years. The January 1997 flood on the Tuolumne River was considered a 100-year flood (U.S. Army Corps of Engineers 1999). Dry Creek flows contributed to the flood of January 1997 on the Tuolumne in the Modesto urban area because there are no upstream reservoirs to help regulate flow in the channel.

Although inflows to New Melones Reservoir (2,400,000 af) during the January 1997 storms were at record levels, the downstream areas along the Stanislaus River did not experience as severe flooding problems as the Tuolumne system because there was available storage capacity to control the peak outflows from the dam. Since New Melones Reservoir was completed in 1978, the peak recorded flow has been 7,820 cfs, occurring on June 3, 1975. An estimated \$78,000,000 worth of damage to private and public property occurred in Stanislaus County during the January 1997 flood.

Federal Emergency Management Agency (FEMA) maps the designated floodplains along major streams and rivers and administers the National Flood Insurance Program for those

communities that have enacted local ordinances restricting development within the 100-year floodplain. U.S. Department of Housing and Urban Development requires determinations for funding requests to ascertain whether projects involve property acquisition, management, construction, or improvement within FEMA-designated 100-year floodplains. Executive Order 11988 requires projects with federal funding or involvement to evaluate alternatives to floodplain encroachment and avoid adverse impacts to floodplain functions. FEMA issues FIRMs that designate areas within the 100-year flood plain. There are three FIRMs that cover the City of Modesto area, and the maps were last revised on May 7, 2001 (Federal Emergency Management Agency 2001a, 2001b, 2001c).

The State Board of Reclamation (Reclamation) is a responsible agency in local flood control management of Stanislaus County rivers. The Tuolumne River, Stanislaus River, and Dry Creek are Designated Floodways subject to regulation by Reclamation (the Designated Floodway includes the area within FEMA's 100-year floodplain, which is larger than the federally designated floodway). It regulates development that will affect flood control levees under its jurisdiction through an encroachment permit program for federal flood-control project levees and State Designated Floodways.

c. Water Quality

The City conducts extensive routine monitoring of drinking water supplies from the Modesto Regional Water Treatment Plant (MRWTP) and City wells. Drinking water must be protected from a variety of potential contaminants including inorganic chemicals (minerals, salts, metals), organic compounds (hydrocarbons, synthetic chemicals, pesticides), microbial pathogens (viruses, bacteria, protozoa), and radioactive constituents. State and federal water-quality standards are constantly undergoing revisions that result in modifications to water treatment and management operations. The City's water-quality monitoring program data indicate that water quality is good and meets state and federal drinking water standards, known as Maximum Contaminant Levels (MCLs), for the regulated constituents (City of Modesto 2000a).

Groundwater in Stanislaus County wells generally has good quality characteristics for domestic consumption. Groundwater tends to have higher concentrations of inorganic minerals than surface water supplies as a result of the interaction with soil and rock structures, and chemical quality varies in different areas due to differing geohydrologic properties of the source aquifers. There are areas within the county where groundwater is unsuitable for domestic and agricultural uses. High salinity groundwater is known to occur near the San Joaquin River and is believed to be upwelling of salt water from deep aquifer materials of marine origin (Black and Veatch et al. 1995; City of Modesto 1997). In addition, there are areas of shallow groundwater that have high nitrate levels that are generally indicative of leaching from overlying land-use activities such as septic leachate or agricultural fertilizers.

Nitrate is a concern to drinking water supplies due to potentially adverse health effects in humans. Iron and manganese are elevated in some areas and are associated mainly with aesthetic qualities of the water. Levels of boron, arsenic, and radionuclides are currently within acceptable regulatory limits. Pesticide contamination is primarily the result of widespread historic use of the agricultural soil fumigant dibromochloropropane (DBCP), primarily in orchards and vineyards where it was used. Ethylene dibromide (EDB) is also a

pesticide of concern in some groundwater areas. There are also localized areas within the county that have contamination from the organic compounds trichloroethylene (TCE), tetrachloroethylene (PCE), and carbon tetrachloride that are used in dyes, dry cleaning industries, and as degreasers.

The Modesto urban area has some groundwater areas that experience elevated levels of salinity, hardness, nitrates, and naturally occurring uranium. Among the approximately 90 City production wells, 12 wells are treated with granular activated charcoal (GAC) units to remove DBCP; two other wells have GAC units for removal of PCE and carbon tetrachloride. Groundwater is chlorinated as it is added into the City's water distribution system to prevent microbial pollution.

Surface drinking water supplies provided from the MRWTP have excellent mineral water quality characteristics because the source of water is Sierra mountain runoff from the Tuolumne River watershed. However, the watershed surrounding Modesto Reservoir has relatively open access and could be vulnerable to contaminant sources such as livestock, development, and recreational use. Modesto Reservoir also provides unrestricted use for water-based recreation activities such as swimming and boating that can also contribute potential contaminants. There is an increased concern in the drinking water industry over pollutants such as the gasoline additive methyl tertiary butyl ether (MTBE), and pathogens such as cryptosporidium and giardia. MTBE was detected in surface water samples from MRWTP in 2000; however, levels were below the secondary water-quality standard that applies to aesthetic (e.g., taste and odor) quality only (City of Modesto 2000a). Gasoline with MTBE is no longer allowed at Modesto Reservoir. MRWTP treats water to remove potential contaminants through a series of processes including ozonation, flocculation and sedimentation, filtration, and chlorination.

The Clean Water Act (CWA), Section 303(d), establishes the Total Maximum Daily Load (TMDL) process to assist in guiding the application of state water-quality standards, requiring states to identify streams whose water quality is "impaired" (affected by the presence of pollutants or contaminants), and to establish the TMDL—the maximum quantity of a particular constituent that a waterbody can assimilate and still meet water quality standards. The impaired section of the Tuolumne River runs from Don Pedro Lake to the confluence of the San Joaquin River. The Tuolumne River is impaired for diazinon, Group A Pesticides, and unknown toxicity (U.S. Environmental Protection Agency 2006). Don Pedro is also listed as impaired for mercury (U.S. Environmental Protection Agency 2006).

The U.S. Environmental Protection Agency (EPA) is the federal agency with primary authority for a number of water quality regulations pursuant to the CWA and Safe Drinking Water Act (SDWA). On October 25, 2006, the CWA Section 303(d) List was updated and approved by the State Water Resources Control Board. Many regulations are currently undergoing substantial revisions. The EPA administers the National Pollutant Discharge Elimination System (NPDES) permitting program in conjunction with the State Water Resources Control Board (SWRCB) for controlling point source and stormwater discharges to waterbodies. The EPA also administers the Underground Injection Control program, which governs the City's pollution control and management programs for stormwater discharges to rockwells located throughout the Modesto urban area.

The EPA establishes national drinking water standards under the SDWA. The SDWA requires states to develop a Wellhead Protection Program (WPP) designed to identify the

zones around water supply wells and recharge areas where land use must be controlled to minimize the possibility of contamination of the water supply. California has not adopted a formal WPP, but relies on the Groundwater Management Plan process described below to provide an equivalent level of protection. Recent revisions to SDWA include the Interim Enhanced Surface Water Treatment Rule (FR 63 volume 241 pages 69478-69521, December 16, 1998), which established new cryptosporidium removal requirements, tightened turbidity performance criteria, and mandated that states perform sanitary surveys for all drinking water systems that use surface water. The Stage 1 Disinfectants and Disinfection Byproducts Rule (FR 63 volume 241 pages 69330-69476, December 16, 1998) established a new MCL for total trihalomethanes, MCL goals for several individual disinfection byproducts, and new concentration goals for residual disinfectants in the finished drinking water. MCLs are regulatory drinking-water standards that must be complied with, whereas MCL goals are non-mandatory performance objectives.

Recently proposed drinking water regulations include a new MCL for radon of 300 picoCuries per liter (pCi/l) in municipal systems that use groundwater (FR 64 volume 211 pages 59246-59378, November 2, 1999), and was promulgated on August 6, 2000. The Modesto water supply is not currently monitored for radon, so future compliance with this proposed MCL is not known. The EPA is also proposing to reduce the existing MCL for arsenic from 50 micrograms per liter ($\mu\text{g/l}$) to 10 $\mu\text{g/l}$ in a rule that was promulgated in January 2006 (FR 65 volume 121, pages 38888-38983, June 22, 2000). In 2000, EPA revised the MCLs for radionuclides in drinking water, to include a new MCL for uranium in the range of 20–80 pCi/l. In 1999, the average concentration of uranium in the City's water supply system was 10.85 pCi/l (City of Modesto 2000a).

In addition, the U.S. Army Corps of Engineers (USACE) administers the CWA Section 404-permitting program, which serves to limit adverse discharges of fill to waters of the United States, including wetlands. Executive Order 11990, Protection of Wetlands, also directs the USACE to avoid adverse impacts on wetlands whenever there is a practical alternative.

The SWRCB and the associated regional office of the Central Valley Regional Water Quality Control Board (RWQCB) are responsible for designating beneficial uses of County waterbodies and groundwater aquifers and setting applicable water quality objectives in the Water Quality Control Plan (Central Valley Regional Water Quality Control Board 2007). The Central Valley RWQCB locally administers the federal NPDES-permitting programs and issues Waste Discharge Requirements (WDRs) for other discharges of wastes to land and water pursuant to the State Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The SWRCB also administers Section 401 Water Quality Certification under the CWA and approves applications for the right to appropriate and store surface water for domestic use.

The California Department of Health Services (DHS) establishes state drinking water MCLs through Title 22, Division 4, Chapter 15 of the California Code of Regulations. Primary MCLs are derived from health-based criteria, and secondary MCLs are based on human welfare considerations (i.e., taste, odor, staining properties). State water-quality policies, regulations, and associated water resource-management programs generally must be at least as restrictive as their federal counterparts.

The DHS has a regulatory program that requires cities to follow the Drinking Source Water Assessment Program (DSWAP). The City completed the DSWAP in May of 2003. The DSWAP was developed to delineate areas near drinking water sources where contaminants

could move and reach a drinking water supply, inventory possible contaminating activities (PCAs), and determine the PCAs to which the drinking water sources are most vulnerable.

In addition, numeric criteria for priority toxic pollutants were enacted in 2000 for ambient water quality in surface waters by the EPA (FR 65 volume 97, pages 31682–31719, May 18, 2000). The so-called California Toxics Rule (CTR) establishes new criteria for protection of aquatic life, and for human health associated with ingestion of water or aquatic organisms, for about 130 inorganic and organic constituents. NPDES permits are subject to the CTR and may require new and innovative pollution control and treatment technologies to maintain compliance with the numeric criteria. The Central Valley RWQCB also revised water quality objectives for boron and salt in the San Joaquin River in 2005 which may affect the allowable discharges of these constituents in drainage waters generated by municipal stormwater systems and agricultural drainage facilities.

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in the Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Flooding and Water Quality policies are designated as FWQ-*X*, where *X* is the discrete number).

a. Federal Regulations

(1) Flooding

FWQ-1: Flood insurance within federally-designated floodplains is available only to development that is consistent with the City's NFIP-compliant floodplain management ordinance.

(2) Water Quality

FWQ-2: The City will conform to federal standards for water quality, stormwater discharge, and "fill" of waters of the United States under the CWA.

b. State Regulations

(1) Flooding

FWQ-3: The State Board of Reclamation (Reclamation) requires an encroachment permit for any project within the boundaries of the Designated Floodways of the Tuolumne and Stanislaus Rivers and Dry Creek. The program is administered pursuant to Title 23 of the California Code of Regulations.

(2) Water Quality

FWQ-4: Development will comply with applicable NPDES-permitting programs and Waste Discharge Requirements (WDRs) pursuant to the State Porter-Cologne Act. It will also be subject to Section 401 Water Quality Certification under the CWA.

c. Stanislaus County General Plan Policies

There are no applicable Stanislaus County General Plan (County General Plan) policies.

d. City of Modesto Policies

The UAGP provides the following policies related to flooding and water quality.

(1) Flooding

FWQ-5: The City of Modesto will restrict development and encroachment into the Tuolumne River and Dry Creek floodplains to ensure and maintain proper downstream conveyance of flood flows to the San Joaquin River. The Comprehensive Planning Districts established for the Tuolumne and Stanislaus Rivers and Dry Creek by the Urban Area General Plan will limit development to open-space and related uses.

(a) Baseline Developed Area

FWQ-6: When development is proposed on parcels located within any "Flood Potential Study Area" shown on Figure VI-2 [of the UAGP], the following policies apply.

1. New urban development shall be approved only when the developer shows it to be protected from "200 year" floods, and otherwise complies with the City's Floodplain Management Ordinance (Title 9, Chapter 4 of the Modesto Municipal Code). (UAGP Policy VI-C.2[a])
2. Undeveloped floodway areas as well as the Tuolumne River Regional Park Master Plan, the Dry Creek Master Plan, the Tuolumne River CPD, and the Dry Creek CPD shall be preserved for undeveloped and non-urban use, as provided in the City's Floodplain Management Ordinance. (UAGP Policy VI-C.2[b])

3. Appropriate emergency plans for the safe evacuation of people from areas subject to inundation from dam failure shall be reviewed and periodically updated. The City Fire Department, Police Department, and Public Works Department shall continue to work with other jurisdictions to develop evacuation routes to be used in case of dam failure. Evacuation routes will serve all of the jurisdictions in the County. (UAGP Policy VI-C.2[c])

(b) Miscellaneous Policies

FWQ-7: The following policies will help to minimize the future loss of life and reduce property damage as a result of floods as well as reduce the economic impact of floods.

1. Maintain the floodplain management ordinance to ensure that flood insurance can be made available to qualified property owners through State and Federal programs. (UAGP Policy VI-C.2[d])
2. Support the Federal Emergency Management Agency (FEMA) Flood Insurance Program so that residents who qualify may purchase such protection. Property owners whose property is located within certain areas identified by FEMA as flood hazard areas may purchase insurance against flood damage. (UAGP Policy VI-C.2[e])
3. Discourage development in areas susceptible to floods, except as provided under the Flood Insurance Program and City Floodplain Management Ordinance. (UAGP Policy VI-C.2[f])

(c) Planned Urbanizing Area

FWQ-8: All of the Flood Hazard Policies adopted for the Baseline Developed Area apply equally within the Planned Urbanizing Area. (UAGP Policy VI-C.3[a])

FWQ-9: The Focused Environmental Impact Report, for any Comprehensive Planning District located within or including any portion of a “Flood Potential Study Area” on Figure VI-2 [of the UAGP], shall include a Flood Hazard Analysis developed to mitigate all of the Flood Hazard impacts identified in the Master Environmental Impact Report. (UAGP Policy VI-C.3[b])

FWQ-10: The results of the Flood Hazard Analysis shall be incorporated into the project design of any Comprehensive Plan. The Comprehensive Plan shall prohibit development within the flood channel, consistent with the City’s Floodplain Management Ordinance. Where possible, the Comprehensive Plan shall minimize development within the floodplain, consistent with the City’s Floodplain Management Ordinance, by such means as providing setbacks from flood zones, designating areas within the flood zones for low-intensity development only, or providing for setback levees. When levee improvements are necessary to achieve flood protection, the Comprehensive Plan shall include adequate funding for those improvements. Funding mechanisms may include special assessments or special taxes for both capital and maintenance costs, and shall not rely solely on impact fees. The City may work with other agencies to provide these improvements. (UAGP Policy VI-C.3[c])

(2) Water Quality

The UAGP contains the following policies relative to water quality.

(a) Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area

FWQ-11: The City shall prevent water pollution from urban storm runoff as established by the Central Valley Regional Water Quality Control Board Basin Plan for surface discharges and Environmental Protection Agency for underground injection. (UAGP Policy V.E.3[c])

FWQ-12: New development shall comply with City requirements for conveyance, retention and detention. New development shall include onsite storage of stormwater as necessary. Rockwells shall not be allowed for new development except at infill areas smaller than three acres where no other feasible alternative is available. (UAGP Policy V.E.3[f])

FWQ-13: Construction activities shall comply with the requirements of the City's Storm Water Management Plan under its municipal NPDES stormwater permit, and the State Water Resources Control Board's General Permit for Discharges of Storm Water Associated with Construction Activity. (UAGP Policy V.E.3[h])

FWQ-14: For developments within a mapped 100-year floodplain, studies shall be prepared that demonstrate how the development will comply with the both the construction and post-construction programs under the City's municipal NPDES permit. Developments in these areas shall not lead to increased erosion or releases of other contaminants that would cause violations of the City's municipal NPDES permit. (UAGP Policy V.E.3[i])

FWQ-15: New developments shall be required to implement an appropriate selection of permanent pollution control measures in accordance with the City's implementation policies for the municipal NPDES stormwater permit. Permanent erosion control measures such as seeding and planting vegetation for new cut-and-fill slopes, directing runoff through vegetation, or otherwise reducing the offsite discharge of particulates and sediment are the most effective method of controlling offsite discharges of urban pollutants. (UAGP Policy V.E.4[f])

5. Policies Which Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the UAGP area. Federal, state, and county policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed; the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. Federal Policies

1. Federal policies avoiding impacts from flooding are summarized in the following: FWQ-1.
2. Federal policies avoiding impacts to water quality are summarized in the following: FWQ-2.

b. State Policies

1. State policies avoiding impacts from flooding are summarized in the following:
FWQ-3.
2. State policies avoiding impacts to water quality are summarized in the following:
FWQ-4.

c. City of Modesto Policies

1. The following UAGP policies avoid impacts to Flooding.
 - a. Baseline Developed Area and Redevelopment Area: FWQ-5 through FWQ-7
 - b. Planned Urbanizing Area: FWQ-5 and FWQ-8 through FWQ-10
2. The following UAGP policies avoid impacts to water quality.
 - a. In the Baseline Developed Area, Redevelopment Area and Planned Urbanizing Area: FWQ-11 through FWQ-15
3. The UAGP Update includes policies to restrict development in the floodplain. Existing policies of the UAGP and the City's Floodplain Management Ordinance will also restrict the amount of post-development runoff to no more than pre-development conditions.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15064.5 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

Appendix G of the State CEQA Guidelines is a sample checklist for assessing potential impact on flooding and water quality. It offers the following broad suggestions for impact assessment; would the project:

1. Flooding
 - a. place housing within a 100-year flood hazard area;
 - b. place structures within a 100-year flood hazard area that would impede or redirect flood flows;
 - c. expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam; or
 - d. substantially alter the existing drainage pattern of the site or area or the course of a stream or river that would result in flooding onsite or offsite?
2. Water Quality

Would the project:

- a. violate water-quality standards or waste discharge requirements;
- b. substantially alter the existing drainage pattern of the site or area or the course of a stream or river in a manner that would result in substantial erosion or siltation onsite or offsite; or
- c. create or contribute runoff water that would provide substantial additional sources of polluted runoff?

2. Thresholds of Significance Suggested by Other Analytical Methods

FEMA flood insurance standards discourage development within 100-year floodplains. The Porter-Cologne Act prohibits discharge to water sources that will result in a degradation of water quality.

3. Thresholds of Significance Adopted by the City of Modesto

After consideration of the methodological approaches suggested by the State CEQA Guidelines and floodplain management considerations, the City has chosen to adopt the following standard of significance:

The project will have a significant effect on flooding if it will result in the placement of structures within a 100-year flood plain as defined by FEMA (Figure V-10-1).

The project will have a significant effect on water quality if it will result in violations to water quality standards, including groundwater standards administered by DHS and standards for surface water quality such as the NPDES.

4. Significant Direct Impacts

The potential hydrologic and water-quality impacts that could occur under UAGP implementation were qualitatively evaluated with respect to several factors, including the duration and extent of the development activities, the magnitude of projected changes to hydrologic and physical site characteristics of the study area compared to existing conditions, and regulatory criteria and guidelines.

New planned business park and commercial development of approximately 6,000 acres in the Modesto planning area, and the associated increase in impervious areas created by pavement and structures, has the potential to increase the amount of runoff and contributions to flooding problems in the urban area. Compared to natural soils that allow infiltration of rainfall and stormwater runoff into the ground, the impervious paved and structural surfaces in urban areas increase the rate and amount of runoff. Increased runoff can accelerate soil erosion, stream channel scouring, and sedimentation of channels, and also increase pollutant transport to waterways. The potential impacts of the project on flooding are considered less than significant because the UAGP Update includes policies to restrict development in the floodplain and thus would avoid exposing persons and property to flood hazards. In addition, new development under the UAGP is required to install

stormwater drainage facilities that restrict the amount of post-development runoff from exceeding pre-development conditions.

Increased development of urban areas could impact surface-water quality through several processes including additional short-term construction-related discharges of wastes, long-term soil erosion from construction and increased discharges of stormwater to drainage channels, and increased long-term discharges of urban pollutants. Groundwater can also be impacted from additional urban development and the associated discharges of household hazardous wastes, accidental spills, and illegal dumping of wastes. The degree to which construction practices adversely affect water quality is determined by the size and intensity of soil disturbances, storage and handling practices of construction materials, training of construction personnel, and seasonal timing of construction activities in relation to the periods of rainfall.

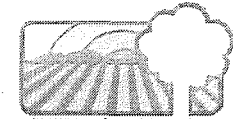
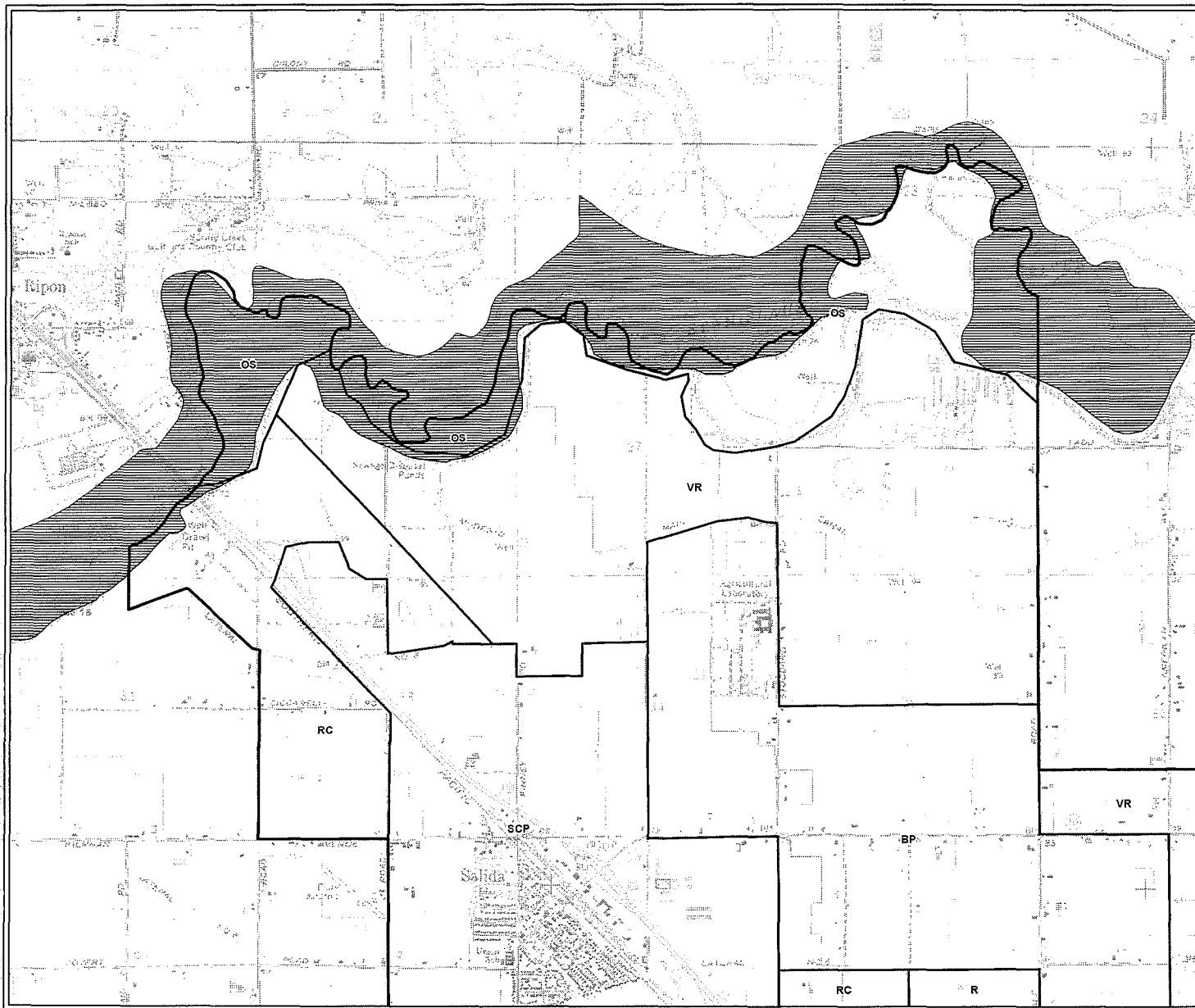
Pollutants in urban runoff are also dependent on many factors, including the density of development, land use practices, amount of vehicular traffic and roadway areas, and hydrologic factors. The quantity of potential pollutant discharges associated with urban runoff are difficult to predict; however, numerous studies indicate the potential for urban and roadway runoff to exceed water-quality standards (U.S. Environmental Protection Agency 2007a). Much of the pollutant runoff in urban areas has been shown to occur as first-flush events of large amounts of pollutants that occur after extended periods of pollutant deposition on the ground during dry weather (U.S. Environmental Protection Agency 2007a).

The potential impacts of the project on surface-water quality are considered less than significant because the City policies and capital improvement projects for stormwater drainage facilities would minimize discharges of urban pollutants to natural waterways. The City drainage program policies require new development to prepare drainage plans and implement urban runoff control measures; larger Specific Plan developments must have storm drainage systems designed to control pollutant runoff. The City's implementation policies for the municipal NPDES stormwater permit require new development to implement an appropriate selection of permanent pollution control measures. Permanent erosion control measures such as seeding and planting vegetation for new cut-and-fill slopes, directing runoff through vegetation, or otherwise reducing the offsite discharge of particulates and sediment are currently some effective methods of controlling offsite discharge of urban pollutants.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines)






CITY OF MODESTO GENERAL PLAN PROGRAM

Figure V-10-1
Sheet 1 of 4

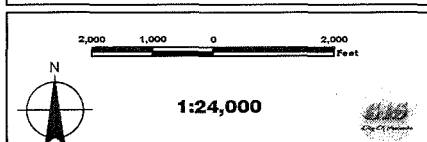
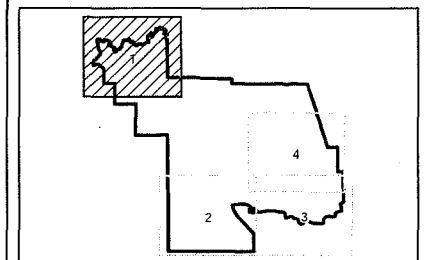
FLOOD POTENTIAL DIAGRAM

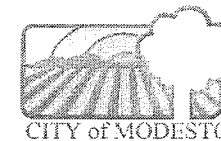
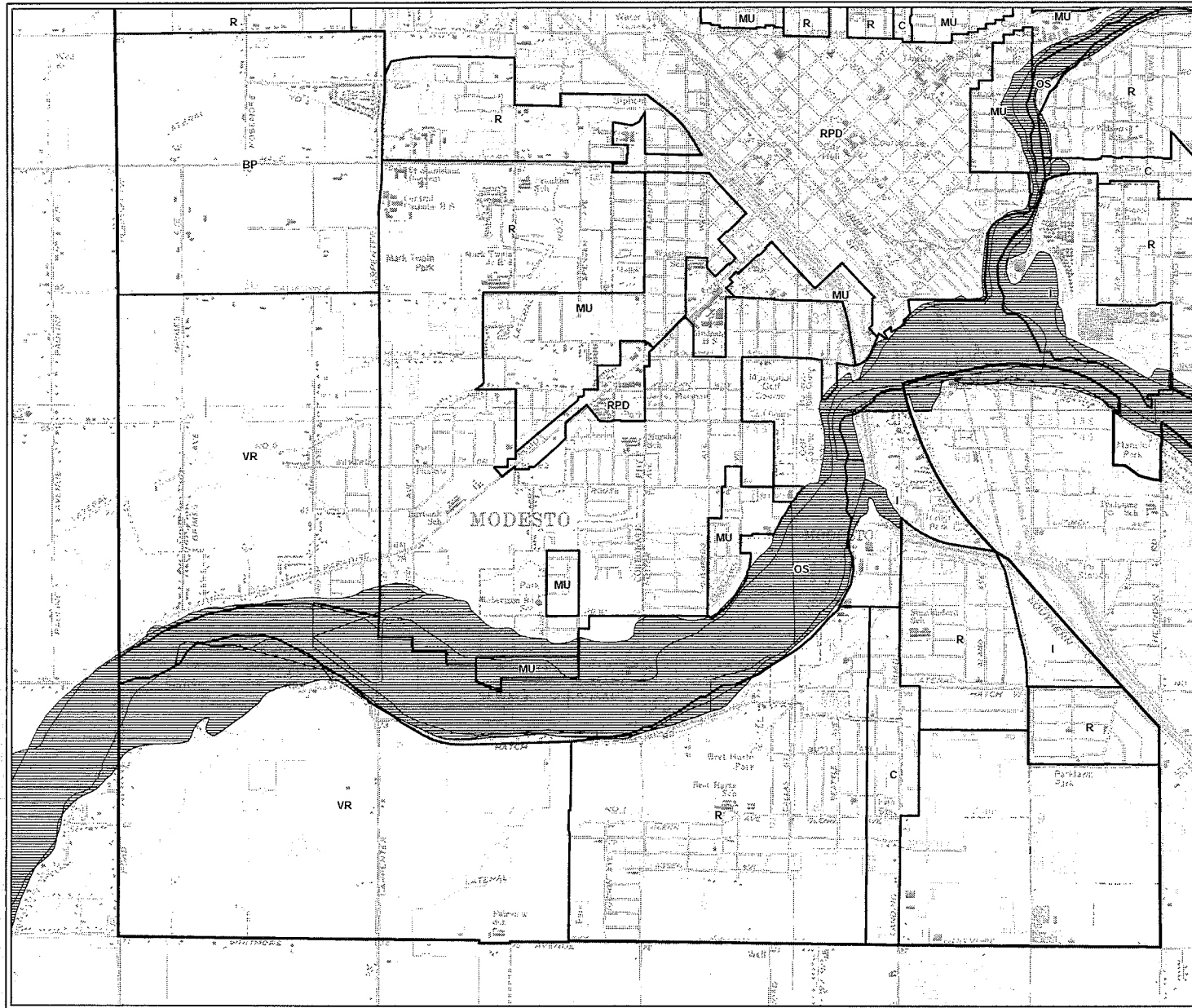
LEGEND

-  **Flood Potential Study Area**
-  **General Plan Land Use Boundary**
-  **Project Area Boundary**

Data Source: FEMA 1996, City of Modesto 2007
Base map: Portions of Brush Lake (1976), Ceres (1987),
Riverbank (1987), and Salda (1987) USGS 7.5' series quadrangles

The Stanislaus River floodplain is illustrated on this figure pursuant to current FEMA mapping. Due to differences between the City base map used for this figure and the FEMA map, the location of the river is not aligned with the northern boundary of the figure. This figure is not to be used for site-specific decisionmaking by the City.








CITY of MODESTO GENERAL PLAN PROGRAM

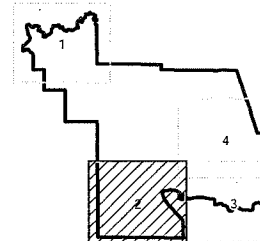
Figure V-10-1
Sheet 2 of 4

FLOOD POTENTIAL DIAGRAM

LEGEND

-  **Flood Potential Study Area**
-  **General Plan Land Use Boundary**
-  **Project Area Boundary**

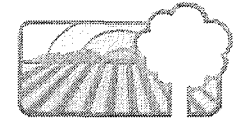
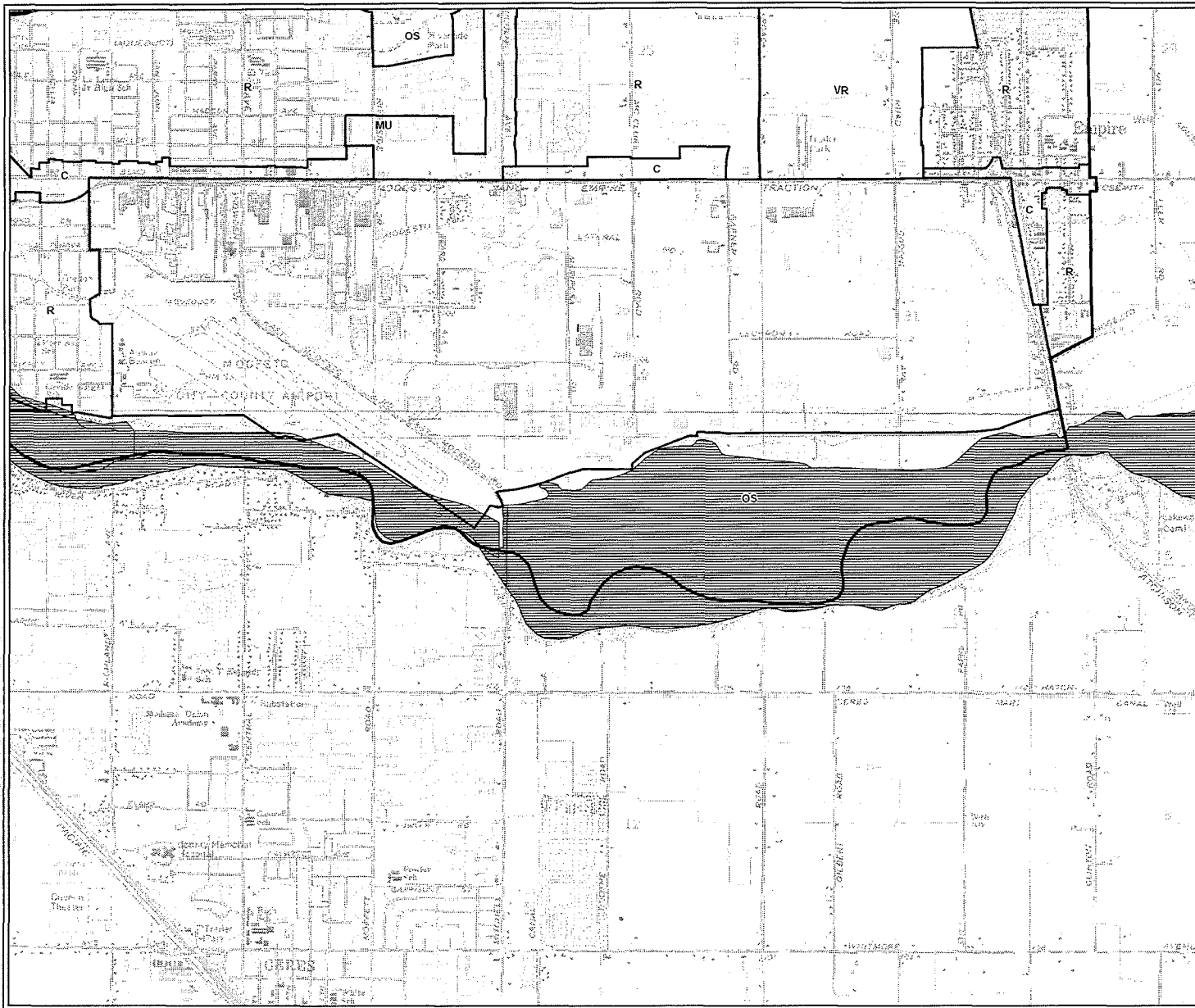
Data Source: FEMA 1996, City of Modesto 2007
Base Map: Portions of Brush Lake (1970), Census (1987)
Riverbank (1987), and Salids (1987) USGS 7.5' series quadrangles



2,000 1,000 0 2,000
Feet

1:24,000








CITY of MODESTO GENERAL PLAN PROGRAM

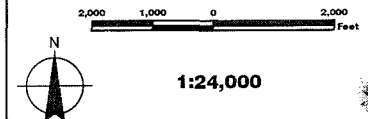
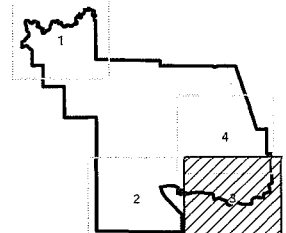
Figure V-10-1
Sheet 3 of 4

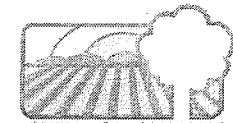
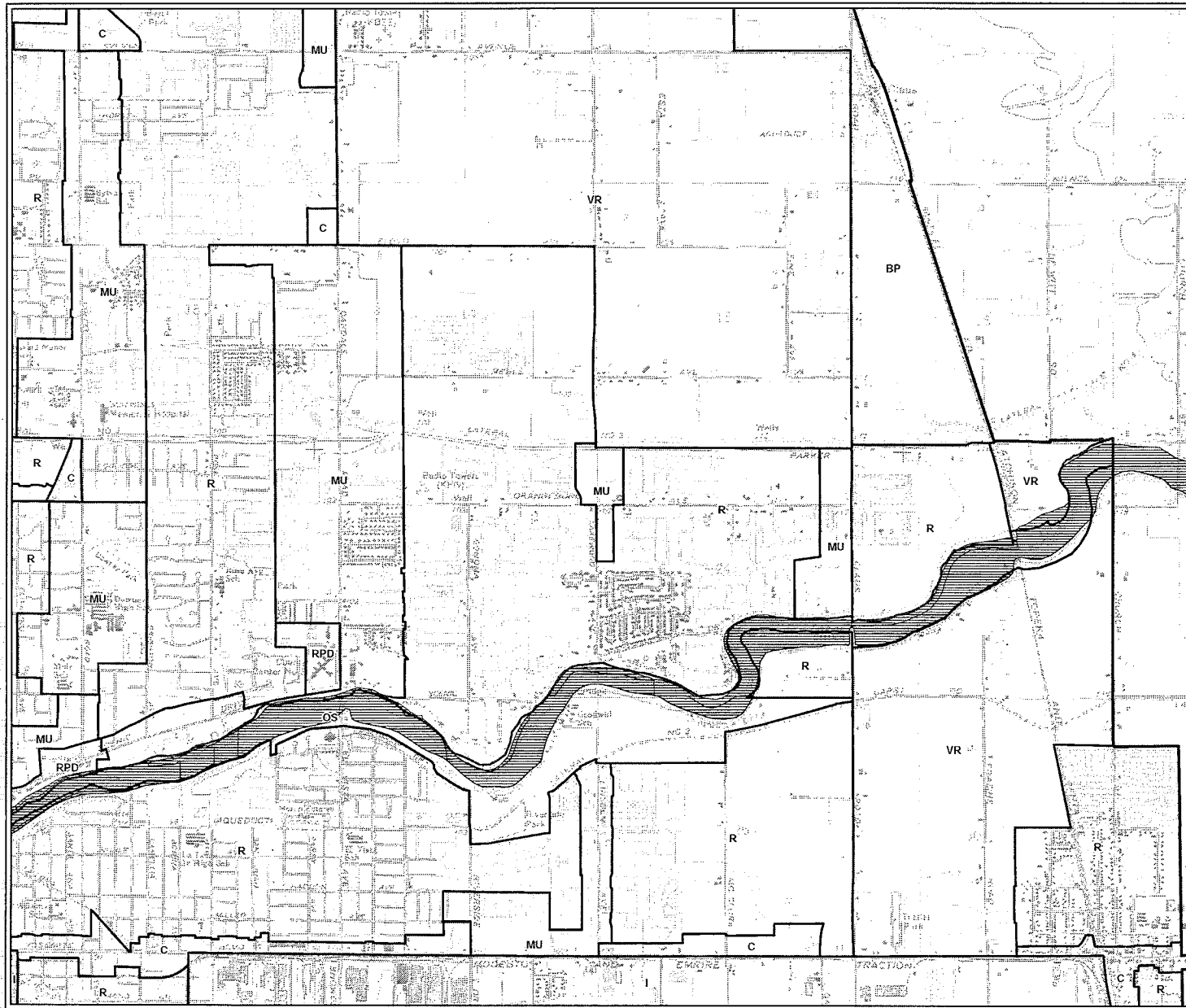
FLOOD POTENTIAL DIAGRAM

LEGEND

-  **Flood Potential Study Area**
-  **General Plan Land Use Boundary**
-  **Project Area Boundary**

Data Source: FEMA 1996, City of Modesto 2007
 Basemap: Portions of Brush Lake (1976), Ceres (1987),
 Riverbank (1987), and Salida (1987) USGS 7.5' series quadrangles








CITY of MODESTO GENERAL PLAN PROGRAM

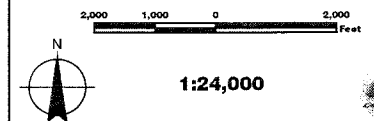
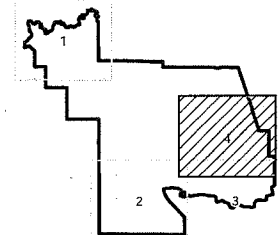
Figure V-10-1
Sheet 4 of 4

FLOOD POTENTIAL DIAGRAM

LEGEND

-  **Flood Potential Study Area**
-  **General Plan Land Use Boundary**
-  **Project Area Boundary**

Data Source: FEMA 1996, City of Modesto 2007
Base Map: Portions of Brush Lake (1978), Ceres (1987),
Riverbank (1987), and Salida (1987) USGS 7.5' series quadrangles



The population of Stanislaus County is projected to increase in a fashion similar to Modesto, which will result in additional urban development and associated increases in impervious areas, urban runoff, and discharges of construction-related and urban pollutants. Cumulative water-quality impacts could occur from these activities. The cumulative development activities in areas outside of the UAGP area would have little impact on flooding hazards because the magnitude of floodflows is governed primarily by the unpredictable nature of storms and snowmelt runoff to upstream reservoirs.

Cumulative development activities could contribute to water-quality impacts in receiving waters such as Dry Creek and the Tuolumne River, which are potentially significant. However, EPA regulations for NPDES stormwater permits and new proposed regulatory additions to the rules have become much more comprehensive in recent years and are being implemented to reduce pollutant runoff from both large- and small-scale activities. Implementation of NPDES-permitting programs throughout the county will reduce potential water-quality impacts to a less-than-significant level.

6. Impacts for Which There Is Insufficient Information to Support a Full Analysis

There are no impacts in this area for which there is insufficient information for full analysis.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

No new mitigation measure is proposed. State regulations regarding surface water quality, the adopted policies of the UAGP listed in Sections VI-C.2 and VI-C.3 of the General Plan (UAGP update Policies FWQ51 through FWQ-15), City and County floodplain ordinances, Modesto Municipal Code Title 5, Chapter 10, and the City's *Guidance Manual for New Development Stormwater Quality Control Measures* would reduce direct impacts to less than significant by, among other things, restricting development within floodplains and requiring specific water-quality protections from development.

2. Measures Which Mitigate Cumulative Impacts

No new mitigation measures are proposed. The adopted policies of the UAGP listed in Sections VI-C.2 and VI-C.3 of the General Plan (UAGP update Policies FWQ51 through FWQ-15), restricting development within floodplains and federal requirements (administered by the Central Valley RWQCB) limiting discharges into surface water would reduce cumulative impacts to less than significant.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

There are no significant effects on this resource, so no alternative is necessary.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on flooding and water quality as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City of Modesto or any responsible agency identified in the Master EIR.
2. The following policies continue to be in force to reduce, avoid, or mitigate impacts: FWQ-1 through FWQ-15.
3. The Guidance Manual for New Development Stormwater Quality Control Measures shall apply throughout the UAGP and per Section 2 of the manual.
4. No new significant effect on flood protection or impacts on water quality are identified within the planning area.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond the May 2008 (estimated date of certification of UAGP/Master EIR Update) boundaries.

3. New information, as defined in State CEQA Guidelines Section 15162(a)(3), becomes available pertaining to flooding and water quality that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

Section 11

Increased Demand for Parks and Open Space

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect demand for park and recreation facilities. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on demand for park and recreation facilities is the Modesto planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the UAGP and *Tuolumne River Regional Park Master Plan* (TRRP Master Plan). The study area for cumulative impacts on demand for park and recreation facilities is the limits of Stanislaus County.

3. Existing Physical Conditions in the Study Areas

a. Overview

In 1995, the Modesto city parks system consisted of 14 acres of developed or partially developed miscellaneous parks, 185 acres of developed or partially developed neighborhood parks, 71 acres of developed or partially developed community parks, 41 acres of developed or partially developed Dry Creek Park, and 180 acres of developed or partially developed Tuolumne River Regional Park (TRRP). The system also included 78.67 acres of undeveloped neighborhood parks, 23 acres of undeveloped community parks, 120 acres of undeveloped Dry Creek Park, and 192 acres of undeveloped TRRP. The existing park system is illustrated in Figure V-11-1.

In early 2006, the City of Modesto (City) identified the following as parks that are developed or undeveloped: 706 acres of regional parks (324 acres developed and 382 acres undeveloped), 131 acres of community parks (65 acres developed and 66 acres undeveloped),

337 acres of neighborhood parks (316 acres developed and 21 acres undeveloped), 8 acres of developed miscellaneous parks (including tot lots and public squares), 11 community centers (six developed and five undeveloped), one family aquatic center (undeveloped), 363 acres of golf courses (all developed), 12 acres of minor league professional baseball field complex (developed), and 208 acres of sports complex facilities (all undeveloped but planned as outlined in the *Regional Sports Facility Study* prepared for Stanislaus County (the County) and the City, adopted in March 2002).

(1) Planned Improvements

The City park system provides excellent public areas along the Modesto urban area's two natural waterways. Dry Creek Park already extends along much of the riparian area, and plans are in process to develop trails along the remaining undeveloped area. The TRRP has been planned since 1968, when a joint powers agreement was signed by the County, the City, and the City of Ceres. The TRRP Master Plan was adopted in 2001. Plans for this park include a wide range of activities and facilities along a 7-mile stretch of the Tuolumne River, from Carpenter Road on the west to Mitchell Road on the east. The park planning areas are illustrated in Figure V-11-2.

Under the joint powers agreement's TRRP Master Plan, over the next 20 years the parkway is to become a 500-acre regional park serving Modesto, Ceres, and the whole of Stanislaus County (Allen pers. comm.). The area along the river is intended to support a trail, and riparian areas are to be restored. Future, planned uses include a sports complex north of the Sutter Avenue wastewater treatment plant, multiuse meadows and new parking areas at the Gateway Parcel, and various improvements to Legion Park. Several boat piers and fishing piers would be installed along the river under the TRRP Master Plan also.

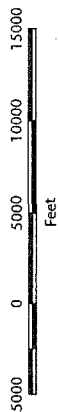
The greatest limitation to the realization of the goals for parks and open spaces is the lack of financial resources for completion or renovation of the park system in the Baseline Developed Area and the maintenance and operation costs for not only the Baseline Developed Area, but also the Planned Urbanizing Area.

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local (County and City) policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Parks and Open Space policies are designated as POS-X, where X is the discrete number).

Redevelopment Areas
Baseline Developed Areas
Planned Urbanizing Area
Park Boundary



Source: City of Modesto 2002.

PARK PLANNING AREAS

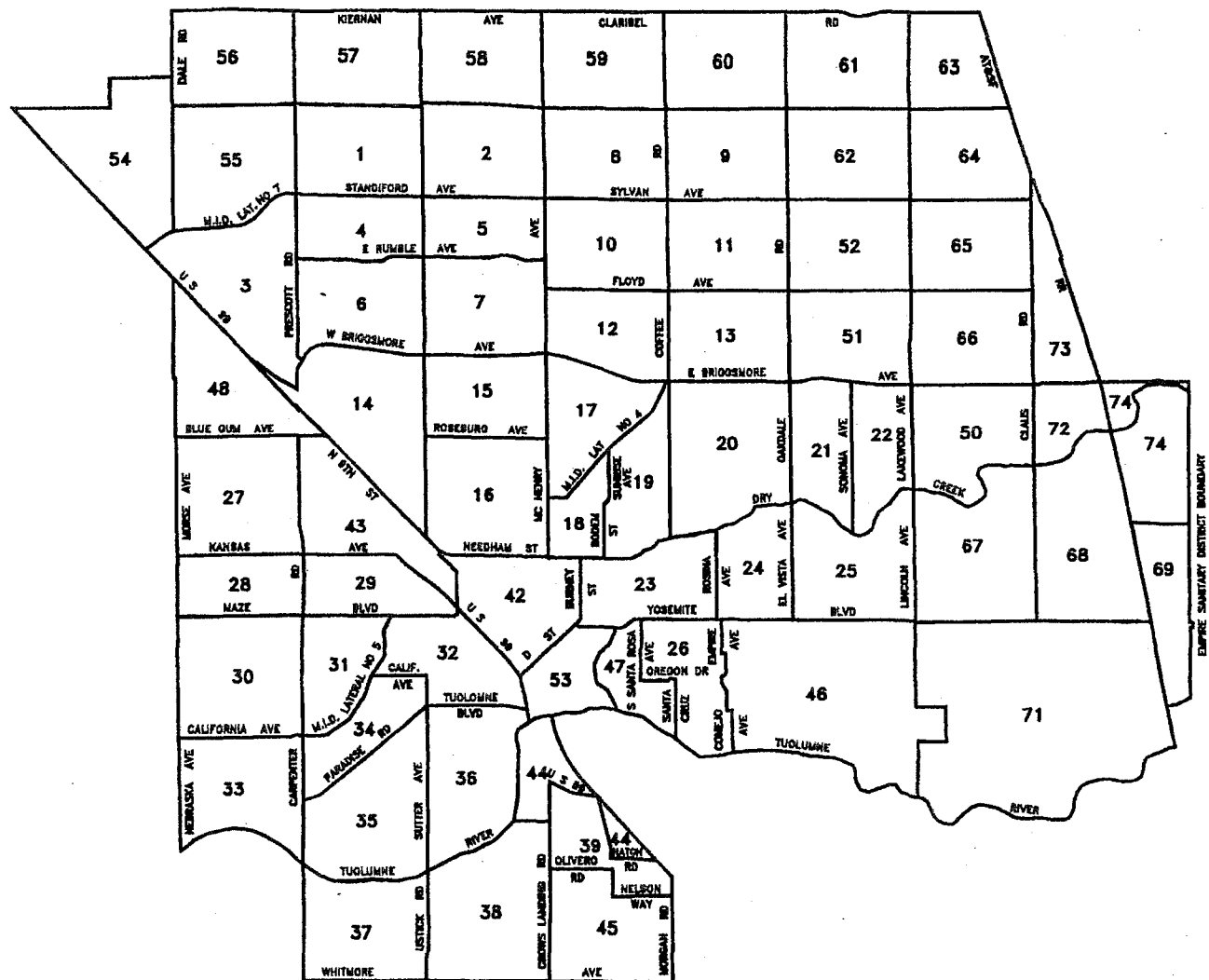


Figure V-11-2
Park Planning Areas

Legend

Park Planning Areas

1	AQUEDUCT	35	BRET HARTE
2	NORTHWEST McHENRY	36	SHACKFORD
3	CHRYSLER 89	40	(DISCONTINUED)
4	GOLDSWORTHY	41	(DISCONTINUED)
5	WOODROW	42	DOWNTOWN
6	MUNDT-EVERETT	43	NORTH 99 INDUSTRIAL
7	BEARD	44	SOUTH 99 INDUSTRIAL
8	NORTHEAST McHENRY	45	TIDEWATER INDUSTRIAL
9	BEYER	46	BEARD INDUSTRIAL WEST
10	SHERWOOD	47	GALLO
11	COFFEE-SYLVAN	48	CALLEGE WEST
12	STANDFORD	49	(DISCONTINUED)
13	FLOYD	50	LAKENWOOD
14	NORTHWEST CENTRAL	51	ORCHARD
15	ROOSEVELT	52	ROSELLE
16	ENGLISH J.C.	53	CENTRAL INDUSTRIAL
17	EAST McHENRY	54	PELANDALE
18	HIGH	55	MACHINERY COLONY
19	MUR	56	MORROW
20	ROSE PARK	57	STANISLAUS
21	EAST ORANGEWOOD	58	KERNAN
22	SCENIC EAST	59	CLARIBEL
23	LA LOMA	60	HETCH HETCHY
24	EAST LA LOMA	61	OAKDALE
25	RIVERSIDE	62	MABLE
26	AIRPORT	63	PLAINVIEW
27	WOODLAND	64	SANTA FE
28	WEST MAZE	65	CLAUS
29	MAZE-WOOD	66	MESLE
30	VINEYARD	67	YOSEMITE
31	TWIN	68	EMPIRE WEST
32	NEAR WEST SIDE	69	EMPIRE EAST
33	PARADISE WEST	70	(DISCONTINUED)
34	BURBANK	71	BEARD INDUSTRIAL EAST
35	BELLEHITA	72	LAKENWOOD EAST
36	FAIRWAY	73	MEXLE EAST
37	FAIRVIEW	74	EMPIRE NORTH CPD



0 1/4 1/2
SCALE IN MILES

COMMUNITY DEVELOPMENT DEPARTMENT
January 10, 1997

a. Federal Regulations

There are no applicable federal policies or regulations related to parks and open spaces. See Section V-7, *Loss of Sensitive Wildlife and Plant Habitat*, of this Master EIR for policies relating to open space habitat.

b. State Policies

POS-1: Pursuant to the California Subdivision Map Act, cities are encouraged to acquire lands within new subdivisions for park and recreation facilities to serve future residents. Accordingly, Section 66477 of the Government Code authorizes cities to require the dedication of land or payment in lieu of fees for parks and recreation purposes when approving subdivisions of land.

c. Stanislaus County Policies

There are no applicable County policies.

d. City of Modesto Policies

The City's UAGP provides the following goals and policies related to recreation and parks.

(1) General Open Space and Park Goals

- POS-2:** The City should work to provide opportunities for social interaction of residents from all backgrounds and walks of life. (UAGP Goal V-G.2[a])
- POS-3:** The City should work to create public places where people can gather. (UAGP Goal V-G.2[b])
- POS-4:** There should be an equitable distribution of open space facilities throughout the City. (UAGP Goal V-G.2[c])

(2) Open Space and Parks Policies—Baseline Developed Area

(a) General

- POS-5:** All acreage standards are expressed as gross acreage. This means that additional acreage must be added to the gross park acreage for offsite requirements, such as street right-of-way, in order to satisfy the minimum standard. Minimum acreage standards will be increased if necessary to accommodate the development standards for the park. (UAGP Policy V-G.3[a.1])
- POS-6:** Figure V-6 [of the UAGP] presents Park Planning Areas for the Baseline Developed Area. With regards to acreage, service area, location and street frontage standards, the existing park system shown on Figure V-5 [of the UAGP] shall be considered

adequate and acceptable, as is, with the following exceptions, by the Park Planning Area designation:

- Bret Harte
- Shackleford
- Tide Water Industrial
- Burbank
- Maze Wren
- Woodland
- College West
- North East McHenry
- Empire East
- Empire West
- Airport

Within these Park Planning Areas, the open space and parks system is NOT considered adequate and acceptable as is and the City will endeavor to develop facilities in accordance with all of the Open Space and Parks policies and Community and Neighborhood Park standards that apply to the Baseline Developed Area. However, the City recognizes and accepts that it may not be possible to conform precisely to all policies and meet all standards in total because of the prior development patterns and policies that were not under the City's control. (UAGP Policy V-G.3[a.2])

- POS-7:** The City will endeavor to plan, acquire, and develop parks and recreation facilities adjacent to schools in order to maximize the potential for joint use of adjoining City and School District open space and recreation facilities. (UAGP Policy V-G.3[a.3])
- POS-8:** Only acreage owned or otherwise controlled exclusively by the City in perpetuity and planned to be developed and operated for the express and primary purpose of providing recreation facilities as set forth in the Neighborhood and Community Park standards outlined in the General Plan will count toward minimum acreage standards. Acreage planned and developed primarily for other purposes such as trails and elements of drainage systems shall not count toward meeting minimum standards for Neighborhood and Community Parks. (UAGP Policy V-G.3[a.4])
- POS-9:** The City shall update and maintain the Capital Facility Fee program for park development to contribute to park system development. City shall also endeavor to provide funding for land acquisition, engineering, design, development, maintenance and preservation of the parks system through funding from fund development efforts, grants, general fund contributions, Capital Facility Fees, Community Financing Districts, and other forms of revenue building. (UAGP Policy V-G.3[a.5])
- POS-10:** The City shall develop non-motorized connections as discussed in the Non-Motorized Transportation Plan such as multi-use paths or sidewalks and bike lanes, to ensure adequate connectivity from the surrounding neighborhoods. (UAGP Policy V-G.3[a.6])

(b) Baseline Developed Area—Neighborhood Park Standards

POS-11: The City will endeavor to provide at least one neighborhood park within each Park Planning Area. The park should be centrally located within the Park Planning Area and have a service radius of one half to three quarters of a mile. The park should have one collector street frontage and the remaining sides should front on residential streets.

The minimum size for a neighborhood park shall be SEVEN ACRES or the total acreage based on TWO ACRES OF PARK LAND PER ONE THOUSAND POPULATION within the Park Planning Area, whichever is greater. (UAGP Policy V-G.3[b])

(c) Baseline Developed Area—Community Park Standards

POS-12: The Community Park Service Area is that area within a radius of approximately one to one-and-one-half miles of the park site. The park should have major street frontage and the remaining sides should front on residential streets.

The minimum size for a community park should be TWENTY-FIVE ACRES or the total acreage based on ONE ACRE OF PARK LAND PER ONE THOUSAND POPULATION within the Community Park Service Area, whichever is greater. (UAGP Policy V-G.3[c])

(3) Open Space and Parks Policies—Planned Urbanizing Area**(a) General**

POS-13 The policies and standards for the development of the park system within the Planned Urbanizing Area differ in several respects from those in the Baseline Developed Area. These policies and standards will be implemented through each “Comprehensive Plan”, in conjunction of the relevant “Comprehensive Planning District” policies presented in Chapter III [of the UAGP]. (UAGP Policy V-G.4[a.1])

POS-14: The acreage standards related to Neighborhood and Community Parks are considered minimum. Park acreage may be increased beyond the minimum standard acreage at the option of a developer with additional contiguous, clean and usable parkland, as long as the additional land is fully dedicated and design and construction are fully funded at no additional cost to the City or associated park development fee program. These acreage standards may be enhanced by additional open space to meet unique characteristics of the Specific Plans for each new Comprehensive Planning District. (UAGP Policy V-G.4[a.2])

POS-15: All acreage standards are expressed as gross acreage. This means that additional acreage must be added to the gross park acreage for off-site requirements, such as street right-of-way, in order to satisfy the minimum standard. Minimum acreage standards will be increased if necessary to accommodate the development standards for the park. (UAGP Policy V-G.4[a.3])

POS-16: Dual-use flood control/recreation facilities shall be developed wherever feasible. Only acreage owned or otherwise controlled exclusively by the City in perpetuity will count toward minimum acreage standards. Park acreage credit for dual-use facilities shall be calculated in accordance with the standards and criteria contained in the City of Modesto’s *Design Standards for Dual Use Flood Control/Recreation*

Facilities manual. In contrast to the Baseline Developed area, School District open space does NOT count towards minimum park acreage requirements within the Planned Urbanizing Area.

The City recognizes the community benefits of dual use flood control/recreation facilities (dual-use facilities) in that these facilities:

- (a) Reduce the total acreage purchased for stormwater detention.
- (b) Allow and encourage maximum recreational uses of detention lands.
- (c) Allow for periodic stormwater detention storage without significantly disrupting park uses.
- (d) Augment park facilities available to the local community.
- (e) Maximize public use of available open space. (UAGP Policy V-G.4[a.4])

POS-17: Dual-use facilities shall be designed and constructed in accordance with the standards and criteria contained in the "Design Standards for Dual use Flood Control/Recreation Facilities" manual. (UAGP Policy V-G.4[a.5])

(b) Planned Urbanizing Area—Neighborhood Park Standards

POS-18: The City will endeavor to provide at least one neighborhood park within each residential neighborhood. The park should be centrally located within the neighborhood and have a service radius of one half to three quarters of a mile.

The park should have one collector street frontage and the remaining sides should front on residential streets.

The minimum size for a neighborhood park shall be SEVEN ACRES or the total acreage based on ONE ACRE OF PARK LAND PER ONE THOUSAND POPULATION within the neighborhood, whichever is greater. (UAGP Policy V-G.4[b])

(c) Planned Urbanizing Area—Community Park Standards

POS-19: The Community Park Service Area is that area within a radius of approximately one to one-and-one-half miles of the park site. The park should have one major street frontage and the remaining sides should front on residential streets. Parks should not back up to residential lots.

The minimum size for a Community Park should be FORTY ACRES or the total acreage based on TWO ACRES OF PARK LAND PER ONE THOUSAND POPULATION within the Community Park Service Area. (UAGP Policy V-G.4[c])

(4) Open Space Policies—Parks

POS-20: Figure V-5 [of the UAGP] presents the existing (2007) park system. Section V-G(2) [of the UAGP] presents a variety of policies applying to parks within the Baseline Developed Area. (UAGP Policy VII-B.6[a])

POS-21: Within the Redevelopment Area, the Redevelopment Plan, adopted in 2007, contains adequate policies that are applicable to the Redevelopment Project Area. (UAGP Policy VII-B.6[b])

- POS-22:** Within the Planned Urbanizing Area, development of new parkland and open space shall be accomplished through the application of specified performance standards presented in Section V-G(3) [of the UAGP]. (UAGP Policy VII-B.6[c])
- POS-23:** The regional park systems for Dry Creek and the Stanislaus and Tuolumne Rivers are defined in Chapter III, as follows: the Stanislaus River Comprehensive Planning District, the Tuolumne River Comprehensive Planning District, and the Dry Creek Comprehensive Planning District. (UAGP Policy VII-B.6[d])

(5) Open Space Policies—River Greenway Program

The State Lands Commission holds a fee ownership in the bed of the Stanislaus and Tuolumne Rivers between the two ordinary low water marks. The entire rivers between the ordinary high water marks are subject to a Public Trust Easement. Both easement and fee owned lands are under the jurisdiction of the State Lands Commission (Public Resources Code Section 6301 and Section 6216). Use of lands underlying the State's easement must be consistent with Public Trust needs in the area. In addition, the State may have a sovereign interest in Dry Creek. Due to staff limitations of the State Lands Commission, a study of this area to define the precise nature and extent of the State's interest has not been done. However, the California State Parks Department is interested [in] providing additional recreational opportunities with the support of local jurisdictions.

The California State Parks Department's Central Valley Vision Report was completed in 2007. The report provides recommendations to develop additional recreational opportunities in the Central Valley, including the City of Modesto. One of the recommendations of the report is to significantly expand recreational opportunities, programs, and services and preserve resources particularly along river corridors. The Central Valley Vision Report identified the Tuolumne River as one of its four rivers of significant interest. One of [the] Department's river studies currently underway includes the Tuolumne River.

State Lands Commission staff believes that the general plan update is an excellent opportunity to incorporate public trust resource protection values and, specifically, a greenway concept. The City Parks and Recreation Department Director agrees with State Lands Commission staff; therefore, the following policies, collectively referred to as the "River Greenway Program," are adopted to guide the development of parkland within the Dry Creek, Stanislaus River, and Tuolumne River Comprehensive Planning Districts (see Chapter III [of the UAGP]):

- POS-24:** Visual corridors of the river will be protected and enhanced. (UAGP Policy VII-B.7[a])
- POS-25:** Visual corridors and access points on the riverfront will be recreated through redevelopment. (UAGP Policy VII-B.7[b])
- POS-26:** Identifiable park entrances will be created. A comprehensive program of park signage and graphics will be developed. (UAGP Policy VII-B.7[c])
- POS-27:** Adequate circulation throughout the park will be provided in order to accommodate pedestrians, bicyclists, and vehicles, as well as equestrians and boaters, if appropriate. Opportunities for park access via public transportation will be provided. (UAGP Policy VII-B.7[d])
- POS-28:** Active and passive recreational areas with universal access will be created. (UAGP Policy VII-B.7[e])
- POS-29:** Vehicular and pedestrian connections to the park that are direct and user-friendly will be provided. (UAGP Policy VII-B.7[f])
- POS-30:** Adequate parking for park activities will be provided. (UAGP Policy VII-B.7[g])

- POS-31:** A continuous trail linkage will be provided throughout the park that includes a range of experiences. (UAGP Policy VII-B.7[h])
- POS-32:** Public access points and linear foot and bike paths will be incorporated into residential redevelopment as discussed in the Non-Motorized Transportation Master Plan. (UAGP Policy VII-B.7[i])
- POS-33:** Riverfront vegetation will be consistent with riparian habitat zones. (UAGP Policy VII-B.7[j])
- POS-34:** Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values and only uses dependent on such resources shall be allowed within such areas (e.g., nature education and research, fishing and habitat protection). (UAGP Policy VII-B.7[k])
- POS-35:** Sensitive habitats and natural areas, including wetlands and riparian corridors, will be protected and enhanced, when feasible. (UAGP Policy VII-B.7[l])
- POS-36:** Existing wildlife habitat areas will be protected and enhanced, when feasible. (UAGP Policy VII-B.7[m])
- POS-37:** Aquatic species and habitat will be protected and enhanced, when feasible. (UAGP Policy VII-B.7[n])
- POS-38:** The natural forces influencing the development of recreational areas, including potential flooding, prevailing winds, sun orientation, and topography will be considered during design. (UAGP Policy VII-B.7[o])
- POS-39:** A flood management program that provides protection from catastrophic flooding and contributes to the ecological values of the river corridor will be promoted. (UAGP Policy VII-B.7[p])
- POS-40:** The scenic resources of Public Trust lands and resources shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect scenic views associated with Public Trust lands and resources. (UAGP Policy VII-B.7[q])
- POS-41:** Areas to accommodate multiple purposes and changes in recreational preferences over time will be developed. (UAGP Policy VII-B.7[r])
- POS-42:** Park and trail systems will be expanded as land becomes available. (UAGP Policy VII-B.7[s])
- POS-43:** Adequate support facilities for recreational activities will be developed. (UAGP Policy VII-B.7[t])
- POS-44:** Historical and archaeological resources will be preserved and protected, when feasible. The locations of archaeological resources will not be disclosed to the public. (UAGP Policy VII-B.7[u])
- POS-45:** Support the California State Parks Department's efforts to provide additional recreational opportunities within the City. (UAGP Policy VII-B.7[v])
- POS-46:** Support the findings and recommendations discussed within the California State Parks' Central Valley Vision Report as well as subsequent studies that pertain to the city. (UAGP Policy VII-B.7[w])

5. Policies Which Avoid Impacts

The following City goals and policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area as they annex and develop. The goal and policy reference numbers are listed, and the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. City of Modesto Policies

The UAGP provides the following goals and policies identified in Section A-4, above, related to recreation and parks:

1. General Open Space and Park Goals: POS-2 through POS-4.
2. Open Space and Parks Policies—Baseline Developed Area: POS-5 through POS-12.
3. Open Space and Parks Policies—Planned Urbanizing Area: POS-13 through POS-19.
4. Open Space Policies—Parks: POS-20 through POS-23.
5. Open Space Policies—River Greenway Program: POS-24 through POS-46.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects on the environment, including parks and open space, using Appendix G of the State CEQA Guidelines.

Appendix G of the State CEQA Guidelines is a sample checklist for assessing potential impacts on parks and open space. It offers the following broad suggestions for impact assessment. Would the project:

- a. result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or require the construction of new facilities, which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives related to park services; or
- b. cause an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

2. Thresholds of Significance Adopted by the City of Modesto

The City will use the thresholds set out in the State CEQA Guidelines.

a. Baseline Developed Area

Any elimination of the existing acreage and distribution of parkland (as of January 1, 2003) will be considered a significant impact.

b. Planned Urbanizing Area

Any proposed project that does not meet the following park and open space ratios will have a significant adverse impact:

- neighborhood park: 1 acre of parkland and open space per 1,000 people; or
- community park: 2 acres of parkland and open space per 1,000 people.

3. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The UAGP does not propose any elimination of existing park or open space land. Impacts on parks and open space will be less than significant.

b. Planned Urbanizing Area

From 1995 to 2025, the UAGP would result in a projected population of approximately 357,000 (the upper range of the estimated population). To meet anticipated demand for the entire population, using the above-mentioned criteria, the UAGP would require a minimum of 357 acres of neighborhood parks; 714 acres of community parks; 208 acres of sports complex; and full buildout of the non-motorized transportation system Class I and Class II trails, 11 community centers, and the family aquatic center. Taking into account the existing park acreage (345 acres of neighborhood and miscellaneous parks, and 131 acres of community parks, developed and undeveloped, total), the additional park acreage required would be 12 acres of neighborhood parks and 583 acres of community parks (Houx pers.comm.).

All existing parkland within the Baseline Developed Area meets recreation goals, with the exceptions of the following neighborhoods: Bret Harte, Shackleford, Tide Water Industrial, Fairway, Burbank, Maze Wren, College West, McKinney Colony, Aqueduct, Empire East, Empire West, and Airport (Houx pers.comm.). New park development would be limited to the Planned Urbanizing Area. The projected population of the Planned Urbanizing Area is 148,600, requiring approximately 149 acres of neighborhood parks and approximately 298 acres of community parks. The required minimum acreages can be met through the application of existing policies and regulations, including Government Code Section 66474,

which require developers to pay parks capital facilities fees to fund the acquisition of appropriate parkland acreage.

This impact is less than significant.

4. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of a project's significant cumulative environmental impacts, whether the project will make a cumulatively considerable contribution to any such impacts, and, if it will, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative impact is one that results from past, present, and probable future projects. A project that has a less-than-significant direct impact on the environment may make a considerable contribution to a cumulative impact nonetheless.

A cumulative impact analysis first identifies whether there exists a cumulatively significant impact in the given resource area. If so, it determines whether the project will make a considerable contribution to that impact. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

Given the magnitude of the effects of new development on parks and open space, the direct impacts described in this section are the same as "cumulative impacts." No further mitigation is required for cumulative impacts, and cumulative impact analysis for parks and recreation will not be required for any anticipated subsequent projects that require a mitigated negative declaration (Public Resources Code [PRC] Section 21157.5) or a focused environmental impact report (PRC Section 21158).

This impact is less than significant.

5. Impacts for Which There Is Insufficient Information to Support a Full Analysis

There are no such impacts associated with parks and open space.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

No new mitigation measures are proposed. The adopted policies of the UAGP, listed in Section A-4 above, *Existing Policies Applying to the Study Area* (POS-2 through POS-46), would eliminate direct impacts by requiring the provision of adequate parks and open space for new development.

2. Measures Which Mitigate Cumulative Impacts

No new mitigation measures are proposed. The adopted policies of the UAGP, listed in Section A-4 above, *Existing Policies Applying to the Study Area* (POS-2 through POS-46), would ensure that as development occurred on land annexed to the City, it would be required to provide adequate parks and open space.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

The project does not result in significant impacts on parks and open space. No alternative designs to lessen effects are necessary.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on parks and open space as long as the following circumstances have not changed.

1. The lead agency for subsequent projects will be the City or any responsible agency identified in the Master EIR.
2. The following City policies found in Section A-4 above, *Existing Policies Applying to the Study Area*, continue to be in force to reduce, avoid, or mitigate impacts: POS-2 through POS-46.
3. No additional significant effect on parks and open space is identified within the planning area, and no new mitigation measures are required.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this resource section, *Increased Demand for Parks and Open Space*, is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond the May 2008 (estimated date of certification for UAGP/Master EIR update) boundaries.
3. There are no substantial changes with respect to the circumstances under which the UAGP is being undertaken that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

Section 12

Increased Demand for Schools

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect demand for school services. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on schools is the Modesto planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan and projection approach to examining cumulative impacts, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the UAGP and projections of the school districts serving Modesto. The study area for cumulative impacts on schools includes the limits of the school districts serving the Modesto planning area.

3. Existing Physical Conditions in the Study Area

Modesto is served by eight school districts: Modesto City Schools; and the Hart-Ransom Union, Stanislaus Union, Salida Union, Sylvan Union, Paradise Elementary, Empire Union, and Keyes Union School Districts. The Riverbank Unified and Oakdale Joint Unified School Districts, located immediately north and east, respectively, of the Modesto planning area, serve a few students living near Modesto's city limits, and the Hughson Unified and Ceres Unified School Districts serve some students living near Modesto's southern city limits. The majority of the city is served by the Modesto City Schools district, which includes elementary schools, middle schools, and high schools. The Modesto City Schools district has experienced significant growth in recent years. Between 1980 and the fall of 2005, the enrollment in kindergarten through 12th grade has increased from 18,294 to 33,312, representing an 82% increase. Eleven out of 23 elementary schools operate on a multitrack, year-round education schedule to accommodate overcrowding and class-size reduction. To address enrollment increases throughout the district, a new comprehensive high school, James Enochs High School, opened in the fall of 2006 and has capacity for 2,500 students. Development and acquisition efforts are under way for the development of the new Joseph A.

Gregori High School on a 79-acre site on Stoddard Road east of State Route (SR) 99 in the Salida area. This high school is planned to open in 2010. (McGarry pers. comm.)

The Modesto City Schools district received an apportionment of \$4.9 million from the State of California for construction of the Modesto High School math and science building in December 2002. In addition, the Modesto City Schools district plans to move forward with modernization projects at 10 schools (McGarry pers. comm.). The Modesto City Schools district also has 11 recently completed bond projects for its elementary schools, including school renovations and expansions, and currently is doing site renovation and new construction for Bret Harte Elementary. High school bond projects include electrical and heating, ventilation, and air conditioning improvements at Grace Davis and Thomas Downey High Schools and Elliott Alternative Education Center, and modernizations of the Grace Davis High School library (Modesto City Schools 2006).

According to the *Hart-Ransom Elementary School: School Accountability Report Card*, Hart-Ransom School facilities are currently in good repair, and no new major construction or modernization has been identified (Hart-Ransom Union School District 2006). Hart-Ransom Academic Charter is currently in the process of expanding its parking facilities and classrooms, as well as modernizing its existing facilities (Hart-Ransom Union School District 2005).

The Stanislaus Union School District completed construction of a new elementary school in 2004 and will be expanding Prescott Senior Elementary School in the near future (Chavez pers. comm.).

In the Salida Union School District, additional schools are under consideration in response to residential development, and it is anticipated that within 5 to 10 years, an elementary and a middle school will be constructed in the district (Silva pers. comm.).

The Sylvan Union School District is in the process of expanding its capacity in the Village One area through the construction of new schools. The district opened the 800-student Mary Ann Sanders Elementary School on August 6, 2007, and the 1,200-student Daniel J. Savage Middle School on August 27, 2007. Both schools are located in Village One. In addition, the district is pursuing the acquisition of a school site in the Tivoli Specific Plan area. Until new facilities are built, new students will be housed at existing sites (Speed pers. comm.).

There is currently one school in the Paradise Elementary School District. No schools are currently under construction or expansion or are planned for construction within the next 20 years (Ballard pers. comm.).

There are seven schools in the Empire Union School District. An expansion of Alice N. Stroud Elementary School for a classroom/computer lab is anticipated to begin June 18, 2007 (Kiger pers. comm.). Additionally, a new elementary school is planned on Church Street at Frazine Road, in coordination with the construction of new development (Wall pers. comm.).

In the Keyes Union School District, Barbara Spratling Middle School was opened on January 8, 2002. No new projects are currently under way (California Department of General Services, Office of Public School Construction 2003).

Modesto Junior College operates two campuses in Modesto within the Yosemite Community College District: the West Campus at Blue Gum and Carpenter Avenues and the East Campus between College Avenue and Tully Road. In the 2004–2005 school year, there was a total enrollment of approximately 17,000 students at both campuses (50states.com 2007). The West

Campus is composed mainly of new buildings; however, the administrative offices are World War II vintage buildings that were part of a military hospital. The Facilities Master Planning Committee has begun work on preparing a facilities master plan (FMP) for Modesto Junior College that will guide the renovation of existing buildings and the construction of new college buildings.

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local (Stanislaus County [County] and City of Modesto [City]) policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the master environmental impact report (Master EIR) analyzes this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Schools policies are designated as S-X, where X is the discrete number).

a. Federal Regulations

There are no directly applicable federal policies.

b. State Policies

Under the current education funding approach, the state sets operating fund revenue limits for schools, intended to equalize educational opportunities across the state. To the extent that a school's share of local property taxes does not reach the appropriate level, the state apportions funds to make up the difference. Modesto schools receive the majority of their operational funds from the state.

School construction and modernization funding is provided by a mix of state, school district (generally from property taxes, special taxes, and general obligation bonds), and developer fee sources. Upon the passage of Proposition 1A (a \$9.2 billion competitive school bond measure) on November 3, 1998, the provisions of Senate Bill (SB) 50 became effective. SB 50 altered the method by which school facilities to serve new development are constructed in California.

SB 50 prohibits a city from denying a residential project on the basis of inadequate school capacity (Government Code Section 65995). SB 50 also limits the fees that can be imposed on new development (Government Code Section 65995). Under SB 50, payment of development impact fees, in addition to specified other funding options, is established to be full mitigation of environmental impacts on schools (Government Code Section 65997). This law does preserve the traditional power of cities to use a general plan and zoning ordinance to reserve or designate areas for schools.

Proposition 1A bond funds were depleted by June 2002. The passage of Proposition 47, the Kindergarten-University Public Education Facilities Bond Act of 2002, in November 2002 provided a fresh \$13.05 billion source of funding for SB 50. Proposition 55, a companion bond measure, was passed in 2004 under the same name to provide an additional \$12.3 billion for school construction. Similarly, in November 2006, the Public Education Facilities Bond Act of 2006 was passed. It will provide up to \$7.1 billion for kindergarten-through-12th-grade school construction.

California Government Code Section 65995 and Education Code Section 17620 authorize school districts to impose facility mitigation fees on new development as a method of addressing increasing enrollment resulting from that development. California Government Code Section 65995 authorizes a residential development fee of \$1.93 per square foot of assessable area to assist in financing facilities needed to serve growth. This fee is adjusted over time. Pursuant to Government Code Section 65997, when the local district is availing itself of state financing, payment of development fees provides for full and complete mitigation of school impacts.

School construction and modernization are funded separately from educational programs. Because school construction and modernization involve physical changes to the environment, it will be a focus of this analysis.

- S-1:** School construction funding is the responsibility of the state (through bond funds) and school districts (through general funds, bonds, and school impact fees). Payment of school impact fees in accordance with state law is considered full and complete mitigation of school impacts. (Government Code Section 65997)
- S-2:** An environmental impact report shall not be certified and a negative declaration shall not be approved for any project involving the construction or alteration of a facility within 1/4 of a mile of a school that might reasonably be anticipated to emit hazardous air emissions, or that would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code, that may pose a health or safety hazard to persons who would attend or would be employed at the school, unless both of the following occur:
 - (a) The lead agency preparing the environmental impact report or negative declaration has consulted with the school district having jurisdiction regarding the potential impact of the project on the school.
 - (b) The school district has been given written notification of the project not less than 30 days prior to the proposed certification of the environmental impact report or approval of the negative declaration. [Public Resources Code (PRC) Section 21151.4.]

c. Stanislaus County Policies

There are no directly applicable County policies.

d. City of Modesto Policies

An objective of the UAGP is to place a hierarchy of schools in close proximity to the residential areas that they may serve, to maximize the opportunity for children to walk or bike to school, minimize the extent of busing, reduce the use of private vehicles, and maximize the use of adjoining school and park facilities.

In 1991, the Modesto City Council established policies that address the impacts of new development. Any new development must provide funding mechanisms, land, or facilities to fully meet any increased demand to school services (Modesto City Council Resolution 91-134). This policy has been superseded by SB 50 limitations.

The UAGP has the following policies relating to schools.

(1) Public Schools Policies—Baseline Developed Area

- S-3:** Work with school districts to avoid overcrowding in existing and/or planned school facilities within the provisions of SB 50 and Government Code Section 65995 et seq. (UAGP Policy III-C.1[f])
- S-4:** Neighborhoods should contain sufficient elementary schools necessary to serve the residential development within the neighborhood. Schools should be located on Collector streets within the neighborhood, preferably at or near the intersection of two Collector streets. (UAGP Policy III-C.2[b])
- S-5:** Each Specific Plan shall be accompanied by a long-range financing strategy which provides reasonable estimates of the costs of on-and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project which serves to implement the subject Specific Plan. If new public facilities are required which will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms. (UAGP Policy III-D.1[e])
- S-6:** For families in the child-rearing years, the proximity of a public elementary school within easy walking distance is a strong criterion in their evaluation of housing choices. Elementary school closure, a school district prerogative, has significant impacts on the surrounding neighborhood. School districts are encouraged to involve the city in deliberations regarding school closure early in the process. Consistent with state statutes, school districts are encouraged to include extensive community participation in the process to close any existing schools. (UAGP Policy V-H.2[a])
- S-7:** Existing schools and proposed school facilities on property owned by any School District on January 1, 1995, are shown on Figure V-7 [of the UAGP]. School districts are encouraged to share their facility plans for new schools with the City. (UAGP Policy V-H.2[b])
- S-8:** Changes in land use or intensity of development within the Baseline Developed Area may have an impact on school services which necessitate close communication between the City and the school district. (UAGP Policy V-H.2[c])
- S-9:** There are specific state law prohibitions against certain uses within close proximity to schools, such as hazardous material uses and alcohol sales. Developers should contact the appropriate school district to determine if there are any known constraints to future development. (UAGP Policy V-H.2[d])

- S-10:** The City shall continue to require that the developer pay, prior to issuance of any building permits, the maximum residential, commercial, and industrial development school fees in effect at the time building takes place. This requirement is in accordance with the provisions of Government Code Section 65995, et seq. (UAGP Policy V-H.2[e])

(2) Public Schools Policies—Planned Urbanizing Area

- S-11:** Public School Districts should be directly involved in the lead time for planning of infrastructure. A lead time of 3–5 years is desirable. (UAGP Policy V-H.3[a])
- S-12:** Neotraditional Planning Principles, prescribed for residential development in the Planned Urbanizing Area, call for public schools as prominent, physical keystones to the connector street network. Schools, placed conveniently to the residents to be served, will maximize opportunities for students to walk and bike to school. Opportunities should be explored for joint school/park development when planning new neighborhoods or villages. The option for joint acquisition and development of school and park sites should be continued. School districts are encouraged to consider these design principles in their facility planning efforts. (UAGP Policy V-H.3[b])
- S-13:** Land for new school facilities should generally meet the following minimum space requirements:
1. Elementary schools—10 acres (gross).
 2. Middle schools or junior high schools—20 acres (gross).
 3. High schools—50 acres (gross). (UAGP Policy V-H.3[c])
- S-14:** Developers of residential projects that are subject to the following policies (3e through 3k, below) should contact each affected school district prior to submitting an application to the City of Modesto. This early consultation with the school district on such matters as housing mix, timing of development, phasing, etc., will assist both parties in reaching an agreement on the best method of mitigating school impacts, should the project later be found to have the potential for significant effects on school facilities. (UAGP Policy V-H.3[e])
- S-15:** Once an application for a residential project, which is not exempt from CEQA, has been determined to be complete, it will be referred to the appropriate school district(s) for “review and comment” in conjunction with the preparation of the required Focused Environmental Impact Report. (UAGP Policy V-H.3[f])
- S-16:** Each school district will provide the City of Modesto with the information needed to evaluate the impact of the proposed residential project on their facilities, including background data necessary to document the impact that a residential project may have on that district’s facilities. Such information shall be provided to the City of Modesto in a timely manner consistent with the City’s responsibilities under CEQA. (UAGP Policy V-H.3[g])
- S-17:** If it is determined that a proposed residential project may have a significant effect on a school district’s facilities, the Focused EIR shall analyze this impact. It shall be the responsibility of the project applicant and school district to resolve the appropriate method of mitigation, consistent with state law. Mitigation may take several forms, including but not limited to one or more of the following: fees, land dedication, special taxes, etc. (UAGP Policy V-H.3[h])

- S-18:** The impact on public school capital facilities shall be considered fully mitigated by the City of Modesto when the developer has complied with Government Code Section 65996. (UAGP Policy V-H.3[i])
- S-19:** Policies 3e through 3i [of Chapter V, Section H, of the UAGP] shall apply when:
1. A residential project seeks the approval of a General Plan Amendment, rezoning, pre-zoning, annexation, Comprehensive Plan, or other legislative act;
 2. The project is located on property classified as Planned Urbanizing Area on the Growth Strategy Diagram;
 3. A school district has imposed school mitigation fees; and
 4. A school district has a valid application for the funding of public school capital facilities pending before the State, unless it is not eligible for such state funding, in which case the school district shall, within thirty (30) days after it has determined in good faith that it is so eligible, initiate a process leading to the filing of a valid application for such funding. (Policy V-H.3[j])
- S-20:** The above policies (3e through 3i) shall not apply to residential projects approved in conjunction with a General Plan Amendment, rezoning, pre-zoning, annexation, or other legislative act that have completed the CEQA process (certification of an environmental impact report, adoption of a negative declaration or adoption of an exemption determination) as of March 5, 1991. (Policy V-H.3[k])

5. Policies Which Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area as they annex and develop. The specific policy reference numbers are listed, and the full text of these policies is found, in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. State Policies

The state provides significant funding for new school construction and renovation. State funding, along with local taxes and developer fees, provides one source of school financing. CEQA (PRC Section 21000 et seq.) provides protections for schools from new hazardous waste generators. State policies are summarized as policies S-1 and S-2 above.

b. Stanislaus County Policies

The *Stanislaus County General Plan* (County General Plan) ensures that public services are sufficient to meet the service demands of new residential development and prohibits future growth from exceeding the capacity of school facilities. County policies apply in unincorporated areas and are not directly applicable to development within the City.

c. City of Modesto Policies

The construction, maintenance, and day-to-day operations of schools are not governed by the City. Pursuant to Government Code Section 53094, a school board, by a two-thirds vote, may exempt itself from zoning requirements. As a result, school districts are responsible for the actual implementation of school facilities. Therefore, the City's role in the implementation of the above policies would be limited to coordination with the affected school districts, determining whether a development project's impacts on school capital facilities is fully mitigated, and making appropriate findings under CEQA if the impacts are not fully mitigated. The following policies facilitate the provision of adequate school facilities: S-3 through S-20.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

The State CEQA Guidelines provide that a project may have a significant effect on the environment if it would result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, or the need for new or physically altered school facilities that, in themselves, could result in significant environmental impacts.

2. Threshold of Significance Suggested by Other Analytical Methods

Government Code Section 65995 and Education Code Section 17620 provide that when impact fees have been paid by a developer, they constitute full mitigation of impacts on school facilities.

3. Threshold of Significance Adopted by the City of Modesto

A new project will have a significant impact on schools if the new student population exceeds the school system capacity or if the project conflicts with established educational uses of the area, except to the limits established under SB 50/Proposition 1A, as subsequently amended.

4. Alternatives to the Proposed Project

Alternatives to the project must be examined when such alternatives would avoid or substantially reduce one or more of the significant impacts of the project (State CEQA Guidelines Section 15126.6). No significant school impacts have been identified; therefore, no alternatives are proposed.

5. Significant Direct Impacts

Complete development of the adopted Modesto planning area would result in a city of an estimated population of up to 357,000 residents (Galvez 2006). This corresponds to about 116,667 households, based on an average household size in Stanislaus County of 3.06 persons (California Department of Finance 2007c).

Based on student generation factors of approximately 0.271 elementary school students, 0.083 middle school students, and 0.176 high school students per single-family household (McGarry pers. comm.), continued development in the Modesto planning area through 2025 could generate up to approximately 31,617 elementary school students, 9,683 middle school students, and 20,533 high school students. Assuming that existing facilities could not sufficiently accommodate this increase and that all of the new students would require new school facilities, continued development of the Modesto planning area would result in the need for approximately 53 elementary schools, eight middle schools, and nine high schools beyond existing levels. These estimates are derived using maximum enrollment numbers that school districts typically use for school design plans: 600 students per elementary school, 1,200 students per middle school, and 2,400 students per high school (California Department of Education 2000).

Furthermore, according to Modesto City Schools' Director of Planning and Research Dana McGarry, Modesto City Schools' elementary attendance areas within the City's planning area do not have excess capacity to accommodate impacts of any new residential development. The schools in the City's planning area are on year-round schedules and have no space for portable classrooms. Additional junior high students generated by new development would need to be accommodated by the expansion of existing schools and likely would not require a new campus (McGarry pers. comm.).

This increased demand for school facilities would result in a significant impact on schools in that it would exceed current capacity. By statute, however, this impact would be mitigated below a level of significance through the payment of school impact fees and the exercise of any or all of the financing options set forth in Government Code Section 65997.

Future school construction would result in environmental impacts. However, the location, size, and timing of future schools are under the authority of the various school districts that will undertake CEQA analyses of those facilities before they are approved and constructed. Because these facilities will be considered under separate CEQA analyses and are outside the control of the City to regulate, no analysis will be prepared of their potential site-specific impacts.

6. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental impacts, whether the project will make a cumulatively considerable contribution to any such impacts, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative impact is one that results from past, present, and probable future projects. A project that has a less-than-significant direct impact on the environment may make a considerable contribution to a cumulative impact nonetheless.

A cumulative impact analysis first identifies whether a cumulatively significant impact exists in the given resource area. If one does, the analysis determines whether the project will make a considerable contribution to that impact. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate a cumulative impact, its contribution will be rendered less than considerable (Section 15130[a] of the State CEQA Guidelines). Because continued development in the planning area would require impact fees for new school facilities, there would not be a considerable contribution to cumulative impacts. Pursuant to Government Code Section 65997, there is not a cumulative environmental impact on schools. Accordingly, the project would result in a less-than-considerable contribution.

7. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

Increased demand for schools is a result of the anticipated growth to occur within the city. Site-specific impacts related to new school construction (e.g., traffic, noise, light, and glare) will need to be addressed by the affected school district as sites are selected and schools designed.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The above-mentioned policies (S-3 through S-20) shall constitute conformance with PRC Section 21081.6(b). As long as all anticipated subsequent projects apply these policies, no new mitigation is necessary. Further, the payment of school impact fees and compliance with SB 50 and related legislation is statutorily deemed to be full mitigation of impacts related to increased demand for school facilities (Government Code Section 65997).

2. Measures Which Mitigate Cumulative Impacts

No further mitigation is required for cumulative impacts pursuant to SB 50, and cumulative impact analysis for schools will not be required for any anticipated subsequent projects that require a mitigated negative declaration (CEQA Statutes Section 21157.5) or a focused EIR (CEQA Statutes Section 21158).

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

The impact on schools is less than significant; therefore, there is no need to consider an alternative to avoid or reduce this impact.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on UAGP implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the impacts on increased demand for schools as long as the City is currently operating under federal, state, and local programs and policies that regulate and manage increased demand for schools within the study area. Any new development under the UAGP would be in compliance with the provisions set forth in these policies and programs. Therefore, there would be no impacts on increased demand for schools resulting from development of the UAGP, and no further analysis is required.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section, *Increased Demand for Schools*, is current as long as the following circumstances remain true.

1. The lead agency for subsequent projects is the City or any responsible agency identified in the Master EIR.
2. The above-mentioned policies are in force.
3. The provisions of SB 50 setting limits on mitigation, or similar legislation, are in place.

Section 13

Increased Demand for Police Services

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect demand for police services. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on demand for police services is the area within the City of Modesto (City) limits.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The pertinent plan to be used for this purpose is the UAGP. The study area for cumulative impacts on demand for police services is the Modesto planning area as it existed on May 1, 2007.

3. Existing Physical Conditions in the Study Area

The Modesto Police Department operates from two main facilities: the department headquarters at 600 10th Street and a leased office space at 12th and F Streets. In addition, a substation located at 3705 Oakdale Road mainly handles fingerprinting as well as some crime prevention operations (Dodge pers. comm.). The Police Department also has space at the Neighborhood Center at Marshall Park, which also serves the Fire and Parks, Recreation, and Neighborhoods Departments.

The Police Department consists of Operations, Investigative Services, and Support Divisions. Several special details—including special investigations, animal control, traffic, drug enforcement, crime prevention, drug education, and training—are divided among the divisions. The Operations Division handles most daily law enforcement, with personnel divided into four shifts for each 24-hour period. The Police Department maintains continuous patrols on city streets, structured to allow coverage to fluctuate according to changes in demand.

The Police Department provides services to Modesto's approximately 209,174 residents (Department of Finance 2007d. In 2006, city law enforcement services received approximately

13,222 reports of Part 1 crimes, which consist of murder, robbery, rape, aggravated assault, burglary, grand larceny, and auto theft incidents. As of May 2007, the Police Department staffed a total of 400 employees, including 286 sworn police officers (Wasden pers. comm.). Response rates vary by type of incoming call; calls reporting crimes in progress (Priority 1P) receive the highest priority and the quickest response. In 2006, the average response time for 1P calls was 4.3 minutes. Most calls report crimes that have just occurred or situations where a police unit is needed as soon as possible. The current number of officers per thousand residents is 1.38, which is below the goal of 1.85 per thousand set by the City Council and Police Department (Findlen-Costa pers. comm.). According to the Police Department, an additional 100 officers and associated equipment and support personnel are needed to achieve adequate levels of police protection to serve the community (Wasden pers. comm.).

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local (County and City) policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master Environmental Impact Report (Master EIR) analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Police Services policies are designated as PS-X, where X is the discrete number).

a. Stanislaus Local Agency Formation Commission Policies

The Stanislaus Local Agency Formation Commission (LAFCo) oversees the annexation of unincorporated lands to the City under the provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Section 56000 et seq.). The following aspects of LAFCo policy directly affect the proposed plan.

PS-1: To implement its responsibilities for planning orderly development and coordination of local government agencies, the LAFCo is required to develop and assign a sphere of influence for each local government agency in the county. With respect to the City, this includes present and probable need for police services. Under Government Code Section 56668, the LAFCo is also required to consider the need for police services before approving any annexation to the City.

Adopted LAFCo policies include the requirement that a plan for service be prepared and submitted by the local agency being affected by the proposed annexation. The plan of service must include information that the range and level of services currently available within the existing boundaries will be at least maintained in the proposed annexation area. Annexations that reduce the existing levels of service will not be approved by the LAFCo.

When determining spheres of influence for cities and special districts, the LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all

the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require consideration of infrastructure needs, projected demand from future growth, financing constraints and opportunities, and options for the administration of services.

c. City of Modesto Policies

The following UAGP policies apply in the Baseline Developed Area and, where relevant, in the Planned Urbanizing Area. In general, however, the Modesto Police Department is only authorized to provide services within its primary jurisdiction: the incorporated Modesto city limits.

(1) Police Policies—Baseline Developed Area and Planned Urbanizing Area

- PS-2:** The City of Modesto should maintain an adequate personnel level, to organize patrol areas and provide investigative responses to achieve a comfortable and safe community climate conducive to a high quality of life and to maintain an active and growing commercial and business environment. To the maximum economic extent feasible, police operations should include proactive law enforcement and administrative efforts, all to be expanded as the City's population grows. (UAGP Policy V-J.2[a])
- PS-3:** The City of Modesto Police Department should strive to reduce the level of crime below levels of other progressive departments with comparable populations and demographics. (UAGP Policy V-J.2[b])
- PS-4:** The City of Modesto should strive to provide sworn officers in sufficient numbers to support basic police services consistent with other progressive departments with comparable populations and demographic statistics. The City of Modesto's recommended long-term police staffing plan contains a ratio of 1.85 sworn officers per one thousand residents. This ratio shall be achieved through on-going evaluation of projects that generate demand for police services and facilities and by incremental increases to staffing each year. This evaluation shall include the long-term forecasting for the need and placement of police facilities. (UAGP Policy V-J.2[c])
- PS-5:** The City of Modesto should strive to provide civilian staff in sufficient numbers to support sworn staff and to support continuing civilianization of services such as Crime Prevention, Investigative Support, Accident Reports, and other documentation of incidents and other forms of clerical support. (UAGP Policy V-J.2[d])
- PS-6:** The City of Modesto should maintain its efforts to educate the public about crime deterrence through programs like the Neighborhood Watch Program within residential neighborhoods, Traffic Watch Program on residential streets, and the Business Watch Program within commercial and industrial areas. (UAGP Policy V-J.2[e])
- PS-7:** The City of Modesto's Police Department should develop criteria and an implementation program to plan and locate fully-functioning police precincts throughout the City and within the General Plan boundary. (UAGP Policy V-J.2[f])
- PS-8:** The City of Modesto's Police Department shall review proposed projects in order to evaluate security features, encourage crime prevention through environmental design,

and evaluate traffic flow with respect to speed and collision mitigation. (UAGP Policy V-J.2[g])

- PS-9:** The City of Modesto shall ensure that the following CPTED principles are incorporated in specific sites and situations, including new developments. (UAGP Policy V-J.2[h])
- PS-10:** Territoriality is a design concept that clearly delineates private space from semi-public and public spaces and also creates a sense of ownership. Ownership thereby creates an environment where appearances of such strangers and intruders stand out and are more easily identified through: a) The enhanced feeling of legitimate ownership by reinforcing existing natural surveillance and natural access control strategies with additional symbolic or social ones; b) The design of space to allow for its continued use and intended purpose; c) The use of pavement treatments, landscaping, art, signage, screening and fences define and outline ownership of space. (UAGP Policy V-J.2[h.1])
- PS-11:** Natural surveillance is a design concept directed primarily at keeping intruders under observation. Provision of natural surveillance helps to create environments where there is sufficient opportunity for people engaged in their normal behavior to observe the space around them. Areas can be designed so they are more easily observed through: a) Design and placement of physical features to maximize visibility. This may include: building orientation, windows, entrances and exits, parking lots, refuse containers, walkways, guard gates, landscape trees and shrubs, use of wrought iron fences or walls, signage and other physical obstructions. b) Placement of persons or activities to maximize surveillance possibilities. c) Minimum maintained lighting standards that provide for nighttime illumination of parking lots, walkways, entrances, exits, and related areas to promote a safe environment. (UAGP Policy V-J.2[h.2])
- PS-12:** Access control is a design concept directed primarily at decreasing criminal accessibility. Provision of natural access control limits access and increases natural surveillance to restrict criminal intrusion, especially into areas where they will not be easily observed. Intruders are more readily recognized through: a) The use of sidewalks, pavement, gates, lighting and landscaping to clearly guide the public to and from entrances and exits; b) The use of gates, fences, walls, landscaping and lighting to prevent or discourage public access to or from dark or unmonitored areas. (UAGP Policy V-J.2[h.3])
- PS-13:** Activity support is the presence of activity planned for the space, and involves placing activity where the individuals engaged in an activity will become part of the natural surveillance system. Examples include: a) Place safe activities in areas that will discourage would-be offenders, to increase the natural surveillance of these activities and the perception of safety for normal users, and the perception of risk for offenders; b) Place high-risk activities in safer locations to overcome the vulnerability of these activities by using natural surveillance and access control of the safe area; c) Locate gathering areas in locations that provide for natural surveillance and access control or in locations away from the view of would-be offenders; d) Improve the scheduling of space to allow for effective use and appropriate intensity of accepted behaviors. (Policy V-J.2[h.4])
- PS-14:** Proper maintenance of landscaping, lighting treatment, and other features can facilitate the principles of CPTED. Functions include: a) Proper maintenance of lighting fixtures to prescribed standards; b) Landscaping which is maintained at prescribed standards; c) Minimizing the conflicts between surveillance and landscaping as groundcover, shrubs and trees mature. (Policy V-J.2[h.5])
- PS-15:** Each Specific Plan shall be accompanied by a long-range financing strategy which provides reasonable estimates of the costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project which serves to

implement the subject Specific Plan. If new public facilities are required which will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms. (Policy III-D.1[e])

5. Policies Which Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area as they annex and develop. County policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed, and the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. Stanislaus Local Agency Formation Commission Policies

The following LAFCo policy limits urban expansion into unincorporated areas without the provision of adequate police services: PS-1.

c. City of Modesto Policies

The following UAGP policies are in place to mitigate or avoid impacts on police services in all three development areas identified in the plan: PS-2 through PS-15.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

Existing conditions and policies were reviewed and evaluated relative to the level of development projected to occur under the UAGP in the three development areas to identify additional demand for police services that would result from a population increase. In particular, changes from the conditions under which the 2003 Master EIR was prepared were evaluated to determine whether new or more severe impacts would occur.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

Appendix G of the State CEQA Guidelines provides that a project could result in a significant effect if it would result in the construction of new or physically altered governmental facilities that would cause significant effects.

2. Thresholds of Significance Suggested by Other Analytical Methods

There are no applicable thresholds of significance suggested by other analytical methods.

3. Thresholds of Significance Adopted by the City of Modesto

After considering the approach suggested in the State CEQA Guidelines, the City has chosen to adopt the following standard.

Impacts from the effects of increased demand for police services will be significant if a project is located in an area that cannot be adequately serviced by existing or budgeted police personnel and facilities.

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The 2003 Master EIR found this impact to be less than significant, considering the policies of the UAGP. Those policies are proposed to be bolstered by this UAGP amendment. As a result, this impact would remain less than significant.

b. Planned Urbanizing Area

Complying with the UAGP policies, particularly the policy that requires a long-range financing strategy for each Comprehensive Planning District, will allow the City to provide the resources necessary to extend service to the newly growing Planned Urbanizing Area. These policies reduce the impact to a less-than-significant level.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether a project will make a cumulatively considerable contribution to any such effects, and, if it will, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project, which has a less-than-significant direct effect on the environment, may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether a cumulatively significant effect exists in the given resource area. If so, the analysis determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

There is no identified cumulative impact on police services.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

Site-specific impacts of the construction of future police facilities are unknown at this time. Potential construction impacts will require future analysis.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

No significant direct impacts have been identified for police services, based on the implementation of policies PS-2 through PS-15; therefore, no new mitigation measure is required.

2. Measures Which Mitigate Cumulative Impacts

Because there is no identified cumulative impact for police services, no new mitigation measure is required. No further mitigation is required for cumulative impacts, and a cumulative impact analysis for increased demand for police services will not be required for any anticipated subsequent projects that require a mitigated negative declaration (Public Resources Code [PRC] Section 21157.5) or a focused environmental impact report (PRC Section 21158).

3. Alternatives to the Proposed Plan

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

No alternative is proposed because there is no significant impact associated with this resource.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on General Plan implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine if subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated subsequent projects, as presented in Chapter II, are within the scope of analysis for police services as long as the following circumstances have not changed.

1. The lead agency for subsequent projects will be the City or a responsible agency identified in the Master EIR.
2. The following City policies continue to be in force to reduce, avoid, or mitigate impacts:
PS-2 through PS-15.
3. The City is able to fund necessary facilities.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized under PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not changed.

1. The City is the lead agency for police services.
2. Land use intensity has not increased beyond that proposed in the UAGP, thereby requiring a revision to the UAGP policies in order to maintain City police services.
3. There are no substantial changes with respect to the circumstances under which the UAGP is being undertaken that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

Section 14

Increased Demand for Fire Services

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect demand for fire services. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on demand for fire services is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The pertinent plan used for this purpose is the UAGP. The study area for cumulative impacts on fire services is the City's planning area.

3. Existing Physical Conditions in the Study Area

a. Overview

Fire protection within the city limits is provided by the Modesto Fire Department. Average response time is 4.5 minutes. From 2001 to 2005, over 90 percent of all calls were answered within six minutes of dispatch, and in 2005 97.4 percent of all calls were answered within 6 minutes of dispatch. The Modesto Fire Department serves an area of approximately 37 square miles and approximately 87,000 housing units (City of Modesto Fire Department 2007).

The Modesto Fire Department consists of 11 fully staffed stations, with additional stations planned in northeast Modesto. Each station in the department is equipped with at least one "Type 1" engine and three firefighters, with the exception of Station 8 (Harry Sham Field), which is staffed with two firefighters and Aircraft Rescue/Firefighting apparatus that meet the requirements of the Federal Aviation Administration and Code of Federal Regulations Part

139. Fire stations are strategically located throughout the City so that residents are not more than three miles from a first responder (City of Modesto Fire Department 2005).

At least 47 firefighters and two battalion chiefs are on duty each 24-hour shift, and the department has a total of 189 authorized staff members and 173 sworn staff members (City of Modesto Fire Department 2007). As of 2001, the department also employs a Fire Marshal, Deputy Fire Marshal, and four Fire Technicians who direct most fire prevention programs. Fire Department equipment includes 12 engines and three trucks (City of Modesto 2007).

The Fire Department strives to achieve the following standards in 90 percent of all cases: a service standard of “first in” response time in all areas of the city within six minutes of dispatch; a “full alarm assignment” consisting of three engines, one truck, one chief officer, and 14 personnel on scene within 10 minutes; and a “second alarm assignment” consisting of two additional fire units with a minimum of six personnel within 15 minutes of dispatch (City of Modesto 2007).

From 2001 to 2005, the Modesto Fire Station received an average of 20,254 calls for service per year. Of those calls, 1,248 or 6.2 percent on average were for fire emergencies; 253 or 1.2 percent were for structure fires; 12,486 or 61.6 percent were for medical aid; 635 or 3.1 percent were for hazardous materials incidents; and 5,641 or 27.9 percent were for other emergencies. (City of Modesto 2007.)

Fire services in the unincorporated areas included within the UAGP boundary are provided by the Burbank/Paradise, Salida, Industrial, and Woodland Avenue Fire Protection Districts, and the Stanislaus Consolidated Fire Protection District. Each of these districts is at least partially within the City’s Sphere of Influence. (Stanislaus Local Agency Formation Commission 2007.) The Industrial Fire District contracts for services with the Modesto and Ceres Fire Departments and is considering dissolution.

These fire districts, their current staffing, and general type of service are listed in Table V-14-1. Because most of these districts are only partially within the City’s Sphere of Influence, these staffing levels do not correspond to the number of fire fighters serving the sphere areas.

Table V-14-1. Fire Protection Districts

District	Total Staff	Full-Time	Volunteers	Type of Service
Burbank Paradise	30	0	30	suburban
Industrial	0 (work is contracted)	0	0	suburban
Salida	37	11	26	suburban
Stanislaus Consolidated	86	56	30	urban
Woodland Avenue	26	0	26	rural

Source: Stanislaus Local Agency Formation Commission 2007.

The rural level of service is characterized as a fire company equipped to handle basic structural fires and related emergencies that will arrive within 15 minutes of travel time, accompanied by other vehicles and capable of sustaining a 500-gallon-per-minute fire flow for one hour. The suburban level of service is characterized as a fire company equipped to handle all “risk emergencies” that will arrive within five to six minutes of travel time and

capable of sustaining a flow for a 2,000-square-foot occupancy for one hour. An urban level of service is characterized as a fire company equipped to handle all risk emergencies that will arrive within five minutes of travel time 90 percent of the time, and capable of sustaining adequate fire flow for the designated risk level in the area. These are broad characterizations of levels of service and do not necessarily reflect the district's effectiveness or efficiency in dealing with a given emergency. (Stanislaus Local Agency Formation Commission Countywide Fire Services Municipal Service Review 2007.)

The Stanislaus Regional 9-1-1 Joint Powers Authority, which includes the various fire protection districts, distributes 911 emergency calls to the respective fire protection district with jurisdiction over the site of the emergency. There are mutual aid agreements among the districts to provide for cross-jurisdictional assistance should a fire district need assistance responding to an emergency. (Stanislaus Local Agency Formation Commission Countywide Fire Services Municipal Service Review 2007.)

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Fire Service policies are designated as FS-X, where X is the discrete number).

a. Federal and State Policies

There are no applicable federal or state policies.

b. Stanislaus Local Agency Formation Commission Policies

The Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Section 56000, et seq.) empowers each county Local Agency Formation Commission (LAFCo) to consider incorporation of new cities, annexation of lands to existing cities and special districts, and other changes to city and district boundaries. In order to carry out its responsibilities for planning orderly development and coordination of local government agencies, the LAFCo develops a sphere of influence of each local government agency within the county, with respect to present and probable need for fire services in the area. LAFCo policies discourage "sprawl" (i.e., a pattern of development characterized by LAFCo by the inefficient delivery of important urban services, such as fire protection). By discouraging sprawl, the LAFCo promotes a more efficient system of local government agencies. When determining spheres of influence for cities and special districts, the LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo.

The Municipal Service Review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require consideration of infrastructure needs, projected demand from future growth, financing constraints and opportunities, and options for the administration of services.

Pursuant to California Revenue and Taxation Code Section 99, as part of an annexation under the Cortese-Knox-Hertzberg Act, the annexing City must provide the LAFCo an agreement approved by the affected special district that describes how property taxes collected from the area proposed to be annexed will be split between the city and the special district. LAFCo will memorialize this agreement as part of its proceedings.

The Stanislaus LAFCo considers the provision of adequate fire service in connection with approval of annexations and the establishment of spheres of influence. Adopted LAFCo policies require that when a local agency submits a resolution of application for a change in organization or a reorganization a plan for service must be prepared and submitted to the LAFCo by the local agency proposing the annexation. A Plan for Services must include information that the range and level of services currently available within the existing boundaries will be at least maintained in the proposed annexation area. Annexations that reduce the existing levels of service will not be approved by the LAFCo.

c. Stanislaus County Policies

The territory outside the city limits is under Stanislaus County jurisdiction. The Stanislaus County General Plan has no applicable policies for fire protection.

d. City of Modesto Policies

The UAGP provides the following policies related to fire protection.

(1) Baseline Developed Area, Redevelopment Area and Planned Urbanizing Area

- FS-1:** The City of Modesto shall maintain adequate fire flows in relation to structure size, design, and requirements for construction and/or built-in fire protection systems in accordance with the California Fire Code and adopted local ordinances. Maintenance of adequate fire flows includes factors such as adequate storage, system gridding, hydrant spacing, and spacing and sizing of water mains. (UAGP Policy V-K.2[a])
- FS-2:** The City of Modesto shall ensure adequate ingress and egress to all structures for fire fighting and rescue purposes independent of privately owned and maintained driveways. (UAGP Policy V-K.2[b])
- FS-3:** The City of Modesto shall provide protection of life and property through the use of engineered fire protection systems and fire-resistive roof systems. (UAGP Policy V-K.2[c])

- FS-4:** The City of Modesto shall practice timely adoption of the current edition of the California Fire Code including local ordinances designed to address local conditions. These codes and ordinances may be amended to suit local conditions. (UAGP Policy V-K.2[d])
- FS-5:** The City of Modesto shall strive to ensure that fire stations, apparatus, equipment, and personnel are in place concurrent with construction in the Planned Urbanizing Area. (UAGP Policy V-K.2[e])
- FS-6:** Future fire station sites and facilities should be closely coordinated with existing and planned public parks, libraries, and other activity centers in order to encourage maximum efficiency of public facilities. (UAGP Policy V-K.2[f])
- FS-7:** The City of Modesto shall promote fire-safe behaviors within the community through public fire education activities and programs. (UAGP Policy V-K.2[g])
- FS-8:** The City of Modesto shall maintain its readiness to mitigate man-made or natural disasters through maintenance and implementation of the Multi-Hazard Functional Plan, the Multi-Hazard Mitigation Plan, and the Emergency Operations Plan. (UAGP Policy V-K.2[h])
- FS-9:** The City of Modesto Fire Department shall maintain equipment, staffing, and facilities to provide Emergency First Response Level Emergency Medical Services, Urban Search and Rescue, and Hazardous Materials emergency response capabilities. (UAGP Policy V-K.2[i])
- FS-10:** The City of Modesto shall provide an adequate Fire and Life Safety Delivery system through the achievement of the following standards.
1. The City of Modesto shall maintain an emergency response system capable of achieving the following standards in 90 percent of all cases.
 - a. The first fire emergency response unit arrives within six minutes of dispatch.
 - b. A full alarm assignment consisting of three engines, one truck, one chief officer, and 14 personnel arrives within 10 minutes of dispatch.
 - c. A second alarm assignment consisting of two additional fire units with a minimum of six personnel arrives within 15 minutes of dispatch.
 2. The City of Modesto shall maintain a fire and life safety delivery system adequate to achieve an Insurance Service Office (ISO) rating of Class 2, with the optimum goal to achieve a Class 1 rating.
 3. The City shall maintain a fire and life safety delivery system adequate to achieve International Accreditation through the Center for Public Safety Excellence. (UAGP Policy V-K.2[j])
- FS-11:** The City of Modesto shall protect life and property by requiring engineered fire protection systems and fire resistive roof systems as part of all new construction; in situations where access is limited, fire sprinklers shall be required for new construction. (UAGP Policy V-K.2[k])
- FS-12:** The City of Modesto shall maintain adequate Fire Prevention staffing in order to provide an effective prevention program aimed at fire loss reduction through inspection, investigation, and public education. (UAGP Policy V-K.2[l])
- FS-13:** Peak Load Water Supply. The City shall ensure that adequate water fire-flows are maintained throughout the City and shall regularly monitor fire-flows to ensure adequacy. New development shall comply with the minimum fire-flow rates, as presented in Appendix B of the California Fire Code. (UAGP Policy VI-D.1[a])

FS-14: Fire apparatus access roads to and around structures shall comply with the minimum requirements in chapter 5 of the California Fire Code. (UAGP Policy VI-D.1[b])

FS-15: Miscellaneous. The following policies will help to minimize the hazardous conditions that might cause loss of life.

1. Enforce State-mandated Health and Safety Codes, including but not limited to the current adopted addition of the California Fire Code, California Building Code, California Mechanical Code, California Electrical Code, California Plumbing Code, Title 19, Title 24, and the City of Modesto Municipal Code.
2. Design and maintain roads so as to ensure adequate access in hazardous conditions.
3. Require all new development to have adequate water to meet the established fire flow standards.
4. Encourage funding sources that help to maintain adequate on-going fire services for both existing and new development. (UAGP Policy VI-D.1[c])

FS-16: All building permits shall be reviewed to ensure compliance with the current adopted edition of the California Fire Code, California Building Code, California Mechanical Code, California Electrical Code, California Plumbing Code, Title 19, Title 24, and the City of Modesto Municipal Code. (UAGP Policy VI-E.1[d])

The UAGP also provides the following urban services policy within the Planned Urbanizing Area only.

FS-17: Each Specific Plan shall be accompanied by a long-range financing strategy that provides reasonable estimates of the costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project that serves to implement the subject Comprehensive Plan. If new public facilities are required that will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms. (UAGP Policy III-D.1[e])

FS-18: The City of Modesto may negotiate with affected fire protection districts when an annexation to the City is contemplated and before it has been effected to determine whether the boundary change may result in the erosion of fire protection or other emergency services. Any resulting agreements must be approved by City Council and the governing board of the fire protection district prior to City Council approval of the annexation. Options range from the consolidation of the fire protection district into Modesto City Fire to revenue sharing. (UAGP Policy V-K.2[m] and VI.D.1[c][5])

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and Planned Urbanizing Area as they annex and develop. LAFCo policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed, and the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.

a. Stanislaus Local Agency Formation Commission Policies

The LAFCo will not approve annexations without a plan for service and in a manner that would eliminate services.

b. City of Modesto Policies

The UAGP provides the following policies related to fire protection in the Baseline Developed Area, Redevelopment Area, and Planned Urbanizing Area: FS-1 through FS-18.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects on the environment, including fire services, using Appendix G of the State CEQA Guidelines. Appendix G is a sample checklist for assessing potential impacts on fire services. It offers the following broad suggestions for impact assessment.

- a. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
- b. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are selected.

3. Thresholds of Significance Adopted by the City of Modesto

The UAGP will have a significant impact on fire services if it will result in increased demand for fire services in an area that cannot be adequately serviced by existing and anticipated future fire personnel and facilities.

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The Baseline Developed Area and Redevelopment Area are already developed. The impacts of development on fire services in these areas will be less than significant.

b. Planned Urbanizing Area

The UAGP would result in the need for additional fire protection services due to increases in the number of employees, permanent population, and associated improvements. The projected planning horizon population and employment of approximately between 334,000 and 357,000 would generate a need for additional fire protection for the increased population and structures as areas within the City develop.

The UAGP planning area includes areas with proposed development for which a 6-minute response, a full alarm within 10 minutes, and a second full alarm within 15 minutes would not be possible because no fire stations currently exist within an approximately 1.5- to 2-mile radius of those areas. City policy, as described above, requires that fire protection be in place concurrent with construction in the Planned Urbanizing Area. This policy will be implemented with the adoption of future Comprehensive and Specific Plans in the Planned Urbanizing Area.

This impact would be less than significant.

The UAGP would involve the expansion of the City's sphere of influence and annexation of currently unincorporated lands. When these lands are annexed to the City, the LAFCo would determine, on a case-by-case basis, the most appropriate means of providing fire service to the annexed lands. In some cases, the annexed lands would be served by the Modesto Fire Department and detached from the County Fire Protection Districts. Detachments would ultimately both reduce the demands on the County districts for fire protection and also reduce the amount of funding received by the districts. The reduced funding could result in indirect impacts on the level of facilities, equipment, and personnel the districts could support. Funding of fire protection by the districts in the face of annexation of portions of their territory is a continuing problem, according to the Countywide Fire Services Municipal Services Review prepared by the Stanislaus LAFCo in March 2007. It states, without being specific, that "[c]ity annexations have eroded the funding base of some of the districts immediately adjacent to them." This report identifies Burbank/Paradise, Industrial, and Salida as fire protection districts that could shrink to the point of being no longer viable as annexations continue. However, because the location and timing of future annexations is unknown, the point in time at which any district would reach such a critical point is speculative and will not be discussed in further detail. (Stanislaus Local Agency Formation Commission 2007.) Since the adoption of the Countywide Fire Services Municipal Services Review, additional information has surfaced indicating that portions of certain fire protection districts could be at risk for erosion of fire protection and emergency services. If those at-risk districts were to become insolvent, some areas might be in danger of reduction of fire protection or certain emergency services.

The LAFCo will take this erosion of funding into account prior to approving future City annexations/district detachments and must, by law, avoid creating a situation where services are adversely affected. As far as its indirect physical impacts (i.e., increased risk of fire damage), the LAFCo is responsible for avoiding that outcome through agreements between agencies or disapproval of annexation requests.

5. Significant Cumulative Impacts

CEQA and the CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (CEQA Guidelines Section 15130). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair-share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (CEQA Guidelines Section 15130(a).)

Cumulative impacts on fire services may occur as a result of future insolvency of some existing rural fire protection districts. The City's Fire Chief and the Fire Chiefs of adjoining rural fire protection districts meet on an as-needed basis to discuss the financial impacts of annexations on the rural fire protection districts and how to prevent the erosion of fire protection and emergency services provided by those districts. Any agreement is subject to the approval of the governing board of the fire protection district and of the City Council.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

Construction of fire stations may have environmental impacts. Construction impacts will be analyzed in future documents when the locations and designs of future stations are known.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

No new mitigation measures are proposed. The adopted policies of the LAFCo and the UAGP (FS-1 through FS-18) would reduce direct impacts by encouraging the provision of adequate fire services concurrent with new development.

2. Measures Which Mitigate Cumulative Impacts

The adopted policies of the Stanislaus LAFCo under the Cortese-Knox-Hertzberg Act and proposed UAGP Policy FS-18, would avoid cumulative impacts by encouraging provision of adequate fire services.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Because the impact is less than significant, no alternative is necessary.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on General Plan implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. Evaluating Subsequent Projects

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on agricultural land as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City of Modesto or any responsible agency identified in the Master EIR.
2. The following policies continue to be in force, would be applied to subsequent projects where appropriate, and would reduce, avoid, or mitigate impacts. The policy reference numbers are listed; the full text of these policies is found in Section A-4 above, *Existing Policies Applying to the Study Area*.
 - a. Stanislaus LAFCo policy as described above.
 - b. Modesto policies in the Baseline Developed Area, Redevelopment Area and Planned Urbanizing Area: FS-1 through FS-18.
3. No additional significant effect on fire services is identified within the planning area, and no new mitigation measures are required.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond the May 2008 (estimated date of certification of General Plan/Master EIR Update) boundaries.
3. No new information, as defined in CEQA Guidelines Section 15162(a)(3), becomes available pertaining to fire services that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

Section 15

Generation of Solid Waste

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would increase the demand for solid waste collection and disposal services, and increase the potential need for additional landfill capacity. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact included in the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on solid waste is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The pertinent plan used for this purpose is the UAGP. The study area for cumulative impacts on solid waste is the corporate limits of Stanislaus County (County).

3. Existing Physical Conditions in the Study Area

a. Overview

In 2004, the City of Modesto had a population of 207,376, and generated approximately 378,130 tons of solid waste (California Integrated Waste Management Board 2006a, California Department of Finance). This number is projected to increase to a total waste generation of approximately 649,740 tons per year by 2025.

The City's approximately 66,652 households account for approximately 28 percent of the City's total waste generation. The remaining 72 percent of generation is attributable to commercial, industrial, agricultural, and public facility operations. The projected 2025 level of waste generation assumes that generation rates will remain the same.

b. Solid Waste Collection and Transport

Two private firms are currently engaged in collection and transport of solid wastes in Modesto. Gilton Solid Waste Management and Bertolotti Disposal provide hauling and interim transfer stations for Modesto's waste disposal, transformation, and diversion streams. A third hauler, Bonzi Disposal, hauls industrial waste. The Gilton transfer station has a capacity of 1,200 tons per day, and Bertolotti Disposal has a permitted capacity of 750 tons per day. (Rodriguez pers. comm.)

c. Waste Disposal

Waste generation information was obtained from the California Integrated Waste Management Board (CIWMB) web site as well as through personal communication with official jurisdiction representatives. The most recent CIWMB-approved diversion rate dates back to 2004.

Solid waste generated by the City is primarily disposed of at the Stanislaus Resource Recovery Facility (SRRF), the adjoining Fink Road Landfill located near Crows Landing, approximately 25 miles southwest of Modesto, and Forward Landfill, Inc., located in the City of Manteca. Various other landfills accepted approximately 6,438 tons of the City's solid waste in 2004. These other landfills include Altamont Landfill, Bakersfield Sanitary Landfill, Vasco Road Sanitary Landfill, Arvin Sanitary Landfill, Azusa Land Reclamation, Guadalupe Sanitary Landfill, Highway 59 Disposal Site, Keller Canyon Landfill, Portero Hills Landfill, Sacramento County Landfill, Bill Wright Disposal Site, Foothill Sanitary Landfill, North County Landfill, B-J Dropbox Sanitary Landfill, and Bonzi Sanitary Landfill (California Integrated Waste Management Board 2007a).

In 2004, the City of Modesto disposed of approximately 43 percent (162,596 tons) of its solid waste by incineration at the SRRF, a waste-to-energy facility operated by Covanta Stanislaus Inc., for the City of Modesto and Stanislaus County (Covanta Stanislaus Inc. 2007) . The facility has a designated refuse capacity of 800 tons per day and an estimated closure date of 2036 (Wilhelm pers. comm.).

Approximately 17% (64,282 tons) of the City's solid waste is disposed of at the Fink Road Landfill (California Integrated Waste Management Board 2004a). Pursuant to its permit from the CIWMB, the Fink Road Landfill has a design capacity of approximately 12 million cubic yards (cy) for Class III waste and approximately 3.1 million cy for Class II waste (Jantz and Stevens pers. comm.). As of April 2007, the landfill has approximately 2,730,008 cy of remaining Class II waste capacity and 7,740,587 cy remaining Class III waste capacity. Applying a 2 cy per ton conversion rate, the landfill has a capacity of approximately 3.8 million tons of Class III waste. At current disposal rates, the landfill has an estimated closure date of 2023. However, Stanislaus County is currently planning a 129-acre expansion of the landfill and a reconfiguration of the existing facility to occur prior to the estimated closure date. These improvements would extend the landfill's useful life by approximately 40 years (Grider pers. comm.).

Additionally, the City of Modesto disposes of 36 percent (136,127 tons) of its solid waste at Forward Landfill, Inc. (California Integrated Waste Management Board). Operating under a

permit from the CIWMB, Forward Landfill Inc. has a site capacity of 51 million cy for solid waste disposal. As of February 2007, the landfill had approximately 28.2 million cy available for Class III waste. Applying its 0.85 tons of waste per cy conversion rate, the landfill still has space for approximately 24 million tons of solid waste (McClellon pers. comm.). If this rate of disposal continues as planned, the landfill is expected to close in 2020 (California Integrated Waste Management Board 2007b). Currently, there is no planned expansion of the facility (Yekta pers. comm.).

AB 939 required that counties and municipalities divert at least 25 percent of their solid waste from landfills by 1995 and at least 50 percent by 2000. In 2004, the City achieved a 54 percent diversion rate, due in part to the use of programs and education aimed at promoting recycling, composting, and overall waste reduction. To continue to meet this mandate, the City's plan calls for the following programs:

1. promotion of source reduction;
2. development of material recovery facilities;
3. active curbside recycling and local buy-back programs;
4. composting of organics;
5. business/industrial recycling;
6. cannery waste diversions for animal feed, land spreading, or alternative fuel production;
7. recycling in schools and recycling education;
8. wood waste diversion (wood is ground and sold as fuel);
9. diversion of inert materials such as concrete for use as road base materials; and
10. establishment of markets for recycling/composted material. (Reed pers. comm.)

Under Assembly Bill (AB) 939, waste-to-energy facilities, such as the SRRF, are considered to be transformation facilities (as opposed to recycling facilities). Consequently, the City receives diversion credit for 10 percent of the volume of waste diverted to the SRRF (Rodriguez pers. comm.).

An estimated 10,000 to 20,000 dry tons of biosolids are generated each year at the City's wastewater treatment plant and are beneficially reused as soil amendment under Waste Discharge Requirements Order 94-030 (Reed pers. comm.).

4. Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, and local policies, or summaries of policies, in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which this environmental topic was analyzed in this Master Environmental Impact Report (EIR).

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate their identification elsewhere in this Master EIR or, where appropriate, their incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Solid Waste policies are designated as SW-*X*, where *X* is the discrete number).

a. Federal Regulations

There are no applicable federal regulations.

b. State Policies

SW-1: The California Integrated Waste Management Act, AB 939 requires that counties and municipalities divert at least 25 percent of their solid waste from landfills by 1995 and at least 50 percent by 2000. Programs to reach these goals include the promotion of source reduction, development of materials-recovery facilities, curbside recycling and local buy-back programs, cannery-waste diversions for animal feed and land spreading and alternative fuel production, recycling in schools and recycling education, composting of organics, business/industrial recycling, wood waste diversion, diversion of inert materials such as concrete, and establishment of markets for recycling/composted material. Landfills operate under permits issued by the CIWMB.

c. Stanislaus County Policies

The territory outside the City limits is under Stanislaus County jurisdiction. The *Stanislaus County General Plan* has the following applicable policies.

- SW-2:** Future growth shall not exceed the capabilities/capacity of the provider of services such as sewer, water, public safety, solid waste management, road systems, schools, health care facilities, etc. (County General Plan, Land Use Element, Policy 22)
- SW-3:** Support efforts to minimize the disposal of solid waste through source reduction, reuse, recycling, composting, and transformation activities. (County General Plan, Conservation and Open Space Element, Goal 7)
- SW-4:** The County will support the solid waste management hierarchy established by the California Public Resources Code (PRC), Section 40051, and actively promote the goals and objectives specified in the Countywide Integrated Waste Management Plan. (County General Plan, Conservation and Open Space Element, Policy 22)
- SW-5:** Conserve resources through promotion of waste reduction, reuse, recycling, composting, ride-share programs, and alternative energy sources such as mini-hydroelectric plants, gas and oil exploration, and transformation facilities such as waste-to-energy plants. (County General Plan, Conservation and Open Space Element, Goal 11)

d. City of Modesto Policies

The UAGP provides the following policies related to solid waste.

(1) Baseline Developed Area

SW-6: The City of Modesto will continue to comply with the requirements of Assembly Bill 939 which mandates the diversion of solid waste of 50% by 2000, by way of source reduction, recycling, composting, and transformation. (UAGP Policy V-L.2)

SW-7: The state's placement of recycling and source reduction at the top of the integrated waste management hierarchy requires that the City implement and maintain recycling and source reduction programs.

Some program options that may need to be considered in the future include variable can rates; expansion of the organics recycling program to include mixed and contaminated paper combined with the green waste; recycling of commercial food waste; mandatory commercial/industrial recycling programs; evaluating the current residential recycling program and making recommendations for modifications as necessary; and continuing to apply for grant funding for program implementation.

A significant amount of the waste currently being generated in the City is compostable. Because of this significant diversion potential, it is essential that green waste composting (including co-composting with biosolids) and compost market development be continued and expanded.

The success of the other programs outlined in the SRRE depends upon the cooperation and participation of a public that understands the importance of waste reduction and recycling objectives. The residential and business communities should continue to be targeted with comprehensive outreach efforts, including multi-media advertising and educational campaigns, community events, and incentive awards for excellence in waste reduction. (UAGP Policy V-L.2[a])

SW-8: The City will continue to participate in the existing Household Hazardous Waste Programs, including support of the drop-off facility, continued public information, participation in the oil and battery collection programs, and implementation and enforcement of existing and new regulations regarding electronic and universal waste legislation. (UAGP Policy V-L.2[b])

SW-9: The City will continue to comply with Stanislaus County's Hazardous Waste Management Plan. (UAGP Policy V-L.2[c])

SW-10: The City shall provide for the safe collection and disposal of all solid waste generated in the City of Modesto, at rates comparable to or less than elsewhere in the state, and ensure there is access to the appropriate disposal facilities for the City's long-term needs. Garbage service shall be provided to all residences and businesses within the City of Modesto. (UAGP Policy V-L.2[d])

SW-11: To meet the waste-disposal demands of the growing population, the City shall continue to seek alternative waste disposal methods for solid waste, including transformation, composting, and alternative energy conversion technologies. (UAGP Policy V-L.2[e])

(2) Planned Urbanizing Area

SW-12: Specific Plans, adopted pursuant to Section 65450 et seq of the California Government Code, may be used for the systematic implementation of the general plan for all or part of the area covered by the general plan. Accordingly, each specific plan shall include a text and a diagram or diagrams that specify all of the following in detail: (1) The distribution, location, and extent of the uses of land,

including open space, within the area covered by the plan. (2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan. (3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable. (4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the preceding items (1), (2), and (3).

Specific Plans may incorporate any of the Land Use Designations presented on the Land Use Diagram, and they may be used within any Growth Strategy Designation: Redevelopment Area, Baseline Developed Area, or Planned Urbanizing Area. Where the Neighborhood Plan Prototype is applied to a Comprehensive Planning District, it shall be implemented by Specific Plan. Any such Specific Plan shall cover a minimum of approximately 480 acres of area or be based on a logical unit of infrastructure, such as an elementary school service area or park planning area. (UAGP Policy III-C.1[d])

- SW-13:** In addition to the Solid Waste Disposal Policies in place for the Baseline Developed Area, as outlined above, the City should also consider implementing local land-use incentives and zoning/building code modifications to encourage source reduction, recycling, and composting and to provide adequate space for containers. Such measures to be considered include a Construction and Demolition Recycling Ordinance, an ordinance and incentive program for Green Building Projects, and mandatory recycling for commercial/industrial to complement the enforcement of Assembly Bill 2176. (UAGP Policy V-L.3[a])
- SW-14** In conjunction with the processing of a Specific Plan within the Planned Urbanizing Area, the City shall consult with the firms responsible for solid waste disposal to confirm that adequate capacity exists for solid waste that would be generated by the project. (UAGP Policy V-L.3[b])

5. Policies Which Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing City limits and within the Planned Urbanizing Area. County policies are included because they reduce or avoid cumulative impacts, as well as implement AB 929. The policy reference numbers are listed, and the full text of these policies is found above in Section A-4, *Existing Policies Applying to the Study Area*.

a. Stanislaus County Policies

The territory outside the city limits is under Stanislaus County jurisdiction and is subject to County policies, ordinances, and regulations. The *Stanislaus County General Plan* has the following applicable policies: SW-2 through SW-5.

b. City of Modesto Policies

1. Baseline Developed Area: SW-6 through SW-11.

2. Planned Urbanizing Area: SW-12 through SW-14.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects on solid waste using Appendix G of the State CEQA Guidelines, a sample checklist for assessing potential impacts on solid waste. Appendix G offers the following broad suggestions for impact assessment. Would the project:

- a. be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- b. comply with federal, state, and local statutes and regulations related to solid waste?

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are available.

3. Threshold of Significance Adopted by the City of Modesto

The City has adopted the following threshold of significance to analyze the effects of the project on solid waste:

The UAGP will have a significant impact if solid waste generation exceeds the projected capacity of existing landfills and waste-reduction facilities.

4. Significant Direct Impacts

a. Baseline Developed Area, Planned Urbanizing Area, and Redevelopment Area

The project will result in a maximum population of approximately 357,000 residents in the project area and the generation of a total of approximately 649,740 tons of solid waste per year in 2025.

Per 2004 CIWMB-accepted diversion rate, the City is diverting approximately 54 percent of its solid waste stream through source reduction, recycling, composting, and transformation. The City can expect to send approximately 2.5 million tons of waste to the SRRF to Covanta Stanislaus, Inc., and deposit approximately 2.5 million tons of waste into landfills by 2025 (California Integrated Waste Management Board 2006a). At the current loading rate, the

Fink Road Landfill has a remaining life of 15 years, and given the expansion being planned by the County its lifespan would be extended by approximately 40 years (Grider pers. comm.). Similarly, Forward Landfill, Inc. is not expected to reach capacity for another 12 years. Since the project would not exceed the capacities of these landfills, it is not identified as a significant impact. As the waste stream generated increases with population, additional landfills and methods for diversion may be needed. The project may also generate the need for additional collection and transfer facilities.

The impact is less than significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines)

The total projected population of Stanislaus County (including the City of Modesto, with an upper-end population projection of 357,000 in 2025) will be approximately 858,000 in 2030 (California Department of Finance, 2007e). The addition of people and structures associated with this population will generate approximately 1.3 million tons of solid waste annually.

All cities within Stanislaus County jurisdiction, excluding the City of Modesto, have formed the Stanislaus County Regional Solid Waste Planning Agency, which adheres to a diversion rate of 50 percent or higher for solid waste per year. In 2004, the Regional Agency achieved a 64 percent diversion rate for solid waste, of which approximately 43 percent was sent to Covanta Stanislaus, Inc. to be incinerated (Kumimoto pers. comm.). The County currently sends a majority of its solid waste to either the Fink Road Landfill or the Bonzi Sanitary Landfill. Out-of-county landfills, such as Forward Landfill, Inc. and the Highway 59 Disposal Site, are used as well (California Integrated Waste Management Board). In 2004, Stanislaus County had a population of 702,123 and generated approximately 1.1 million tons of solid waste (California Department of Finance 2007d, California Integrated Waste Management Board 2006b). Using the projected population in 2025 to represent each year as well as a conservative diversion rate of 50 percent, the County will be disposing of a total of approximately 13 million tons of solid waste to landfills by 2025.

Because both the City and the Stanislaus County Regional Solid Waste Planning Agency use the SRRF for the disposal of garbage, which is not source reduced, recycled, or composted (approximately 43 percent of total solid waste), they both expect to meet a diversion rate of at least 50 percent for solid waste over the next 20 years. Based on these figures, the maximum amount of

garbage that will require landfill disposal will be approximately 13 million tons. With the proposed 129-acre expansion of the Fink Road Landfill currently underway, Bonzi Sanitary Landfill's estimated closure date not scheduled until 2019, and the remaining 24 million tons of available solid waste disposal at Forward landfill, Inc., Stanislaus County can expect to meet its disposal rates over the next 20 years (California Integrated Waste Management Board 2007c). Thus, there is no significant cumulative impact on solid waste facilities to which the project might contribute.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

There is no such impact for solid waste.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The adopted and proposed policies of the UAGP, listed in Section A-4.d above, would avoid direct and indirect impacts by reducing the quantity of solid waste generated so that state diversion objectives continue to be met and solid waste does not exceed landfill capacity during the planning period.

2. Measures Which Mitigate Cumulative Impacts

The adopted policies of the County General Plan, listed in Section A-4.c. above, would reduce (but not eliminate) cumulative impacts by allowing for future development of a landfill site. The actions of the Regional Solid Waste Planning Agency will avoid the cumulative impact on solid waste by providing future capacity beyond the planning horizon for the UAGP.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Solid waste generation is a result of the anticipated growth to occur within the City. None of the alternatives would reduce the potential effects of this growth on solid waste.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 211081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on General Plan implementation. Therefore, no separate mitigation monitoring is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on solid waste generation as long as the following circumstances have not changed:

1. the lead agency for the subsequent project will be the City of Modesto or any responsible agency identified in the Master EIR; and/or
2. the preceding City policies SW-8 through SW-16 continue to be in force to reduce, avoid, or mitigate impacts.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by Public Resources Code Section 21166, the analysis contained in this section, *Generation of Solid Waste*, is current as long as the following circumstances have not occurred:

1. the planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025;
2. the planning area is expanded beyond the May 2008 (estimated date of certification of General Plan/Master EIR) boundaries; and/or
3. new information, as defined in State CEQA Guidelines Section 15162(a)3), becomes available pertaining to solid waste that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

Section 16

Generation of Hazardous Materials

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would increase the generation of hazardous materials. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

For the purposes of this master environmental impact report (Master EIR), a hazardous material is defined by California Health and Safety Code (CHSC) Section 25501 as follows:

“Hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

1. Study Area for Direct Impacts

The study area for direct impacts on hazardous materials is the Modesto planning area, as shown in Figure III-2.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The pertinent plan used for this purpose is the City of Modesto’s (City’s) UAGP. The study area for cumulative impacts on hazardous materials is the Modesto planning area.

3. Existing Physical Conditions in the Study Area

This section describes the general status of hazardous materials within Modesto. Because of existing federal, state, and local hazardous materials programs and policies already in place, the evaluation of hazardous materials is limited to a qualitative description of the existing regulatory framework under which the City is currently operating. Hazardous materials conditions are generally no more adverse than described in the 1995 Master EIR and its 2003 update. The

following discussion provides a description of the federal, state, and local policies in place and provides a summary of the various site classifications, by which hazardous materials are identified. The following discussion also describes Modesto's current status of compliance with hazardous materials regulations.

a. Groundwater Point Source Pollution

(1) Leaking Underground Storage Tanks

Leakage from underground storage tanks (USTs), particularly those installed prior to the regulatory scheme enacted in the 1980s, is a source of soil and groundwater contamination in Modesto. Contaminants typically include fuels (gasoline and diesel), waste oil, and solvents. Agricultural tank systems of more than 1,100 gallons and all nonagricultural tank systems are tested routinely and monitored for leaks. (A tank system includes an underground tank and its associated piping.) Permits must be issued as a condition of operation and include:

- a. annual precision testing,
- b. leak monitoring, and
- c. inventory reconciliation.

Contamination generally is discovered during the routine investigation of suspected leakage or tank removal. Inspections of USTs are administered by the Stanislaus County (County) Environmental Resources Department's hazardous materials program.

The Environmental Resources Department investigates all such sites to determine the degree of contamination and the level of cleanup needed. The County works closely with the Central Valley Regional Water Quality Control Board (RWQCB) during all phases of the site investigation. The State of California sometimes serves in a lead role when it is determined that the state is better able to oversee a site.

The impact of leaking USTs is less than significant, based on the existing regulatory framework. Any leaks must be remediated before a site is deemed suitable for residential use.

(2) Commercial/Industrial Pollution

(a) Superfund Sites

The U.S. Environmental Protection Agency (EPA) has identified an area near McHenry and Roseburg Avenues (the "Modesto Ground Water Contamination" site) as a Superfund site. The Superfund regulations are discussed below under *Federal Regulations*. The EPA, Region IX, provides the following information (U.S. Environmental Protection Agency 2007b).

The Modesto Ground Water Contamination site has groundwater contamination linked to Halford's Cleaners at 941 McHenry Avenue, which discharged

tetrachloroethylene (PCE) into the City sewer and leaked PCE into the soil and groundwater over a period of approximately 50 years. An unknown quantity of PCE was released. The dry cleaning equipment that led to the release has been replaced with modern equipment, and PCE is no longer being discharged into the sewer. A UST at the cleaners has been removed and remediated.

The dry cleaner is located approximately 1,200 feet from a municipal water well. When the City began monitoring groundwater in 1984, Municipal Well 11 was found to be contaminated with PCE above the allowable drinking water standard. The City took the well out of service, and a granular activated carbon treatment system was installed in June 1991 to remove the PCE contamination from the groundwater. Municipal Well 11 was shut off in October 1994 because it was found to be contaminated with low levels of naturally occurring uranium that are slightly above the allowable drinking water level. Municipal Well 11 may never be returned to service as a source of drinking water because of the cost of removing the naturally occurring uranium.

Information on the soil and groundwater contamination at the site was collected during a removal assessment in 1990, and a soil vapor extraction system was installed to address shallow soil contamination. Subsequent investigations determined that no immediate actions were required, and the soil vapor extraction system has been turned off until a final remedy is selected. The EPA performed preliminary investigations and determined that no immediate actions were required while the final cleanup is being planned.

The EPA completed Phase 1 and Phase 2 investigations and is conducting a Phase 3 investigation to determine the nature and extent of contamination. Remediation activities have begun on a portion of the site.

(b) Other Hazardous Materials Sites Compiled Pursuant to California Government Code 65962.5 (Cortese List)

The Department of Toxic Substances Control (DTSC) has identified an area on West Service Road, approximately 8 miles southwest of Central Modesto, as a state response site. The DTSC provides the following information about the site in its Site Mitigation and Brownfields Reuse Program EnviroStor database (Department of Toxic Substances Control 2007).

The Gallo Glass–Sisk Ranch site is part of a parcel owned by Sisk Ranch that was filled with 1,500 cubic yards of chromium contaminated furnace brick from the Gallo Glass manufacturing facility. Chromium leached from the bricks and contaminated the groundwater beneath the site and Evans Orchard, the adjacent property. The groundwater contaminated with chromium reached a depth of approximately 110 feet below the ground surface.

In October 1986, the contaminated bricks and soil were removed as an interim remedial measure. To address groundwater contamination at the Gallo Glass–Sisk Ranch site, a remedial action plan (RAP) was completed in February 1991. The RAP specified that groundwater be extracted and treated to below the drinking water maximum contaminant level for chromium with a chemical

treatment system. In 1994, the DTSC approved the design of an expanded groundwater treatment system, which included the addition of three monitoring wells to verify capture, two extraction wells to increase the zone of capture, and two leach lines to increase the capacity for treated groundwater disposal.

Final remedial actions at the Gallo Glass–Sisk Ranch site, as identified in an operation and maintenance plan certified by the DTSC in June 1995 and as described in the “Enforceable Agreement” between the Gallo Glass company and the DTSC, dated June 30, 1995, included groundwater extraction, chemical treatment, and the reintroduction of treated groundwater into the aquifer via percolation ponds and leach lines.

1. Implementation, Monitoring, and Report Activities

In accordance with the June 1995 Enforceable Agreement between the Gallo Glass company and the DTSC, five-year review reports for the site were submitted by Gallo Glass to the DTSC on August 21, 2000, and October 28, 2005. Based on a review of the 2000 report, the DTSC determined that remedial actions at the site remained protective of human health and the environment. No areas of the site were in noncompliance with the selected remedial actions, the operation and maintenance plan, or the operation and maintenance agreement. In 2001, all the site groundwater monitoring wells showed chromium levels to be below the cleanup goal of 50 parts per billion (drinking water standard). Accordingly, the DTSC allowed Gallo Glass to shut down the on-site groundwater extraction and treatment system and continue monitoring the groundwater monitoring well network. From 2003 onward, elevated concentrations of chromium were found in one monitoring well located on the northwestern edge of the historical plume. Consequently, in its review of the 2005 report, the DTSC determined that Gallo Glass needs to implement additional remedial actions to meet the objectives of the RAP. The DTSC requested that Gallo Glass submit a revised five-year review report to address the increased levels of chromium discovered in the single well (Patenaude pers. comm.). The DTSC currently is reviewing and responding to Gallo Glass’s revised five-year review report (Patenaude pers. comm.).

(c) Nonpoint Source Pollution

Nonpoint source pollution results when pollutants, such as oil and grease, fertilizers, pesticides, bacteria associated with litter and animal wastes, and solvents and household chemicals, flow through storm drains into creeks, streams, and the Tuolumne and Stanislaus Rivers. Unlike industrial waste and sanitary wastewater, stormwater is not treated, so it carries any pollutants with it directly into the creeks, streams, and rivers. Studies have shown that these nonpoint sources are a significant contributor of pollutants that appear in these waterbodies. Pollutants flow through the storm drain system and find their way to the waterbodies after being deposited on paved surfaces or spilled into gutters. Surface runoff also can flow into the canals of the Modesto Irrigation District (MID) during heavy storms.

The City received a municipal National Pollution Discharge Elimination System (NPDES) permit for stormwater discharges from the Central Valley RWQCB. Under this permit, the City is required to develop, administer, implement, and enforce a Comprehensive Stormwater Management Program to reduce pollutants in urban runoff to the maximum extent practicable. In compliance with this requirement, the City has developed the *City of Modesto Stormwater Management Program: Guidance Manual for New Development Stormwater Quality Control Measures* (City of Modesto 2001a). The manual includes specific design requirements for minimizing pollutant runoff.

(d) Transfer Stations, Storage Areas, and Landfills

The potential for a release of hazardous materials exists whenever solid waste is transported or transferred. Once waste is deposited into landfills, the potential exists for groundwater contamination because of leachate. The County operates the Fink Road Landfill on the west side of Interstate 5 under permit from the California Integrated Waste Management Board (CIWMB). The Fink Road Landfill is the primary repository for Modesto's solid waste.

(3) Existing Policies Applying to the Study Area

Below is a comprehensive list of major federal, state, County, and City policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., hazardous materials policies are designated HM-*X*, where *X* is the discrete policy number).

(a) Federal Regulations

The principal federal regulatory agency governing hazardous materials is the EPA. Two primary federal regulations concerning hazardous materials are described below. Other federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations.

The Resource Conservation and Recovery Act (RCRA) empowers the EPA to administer a regulatory program that extends from the manufacture of hazardous materials to their disposal, regulating the generation, transportation, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, was passed to facilitate the cleanup of the nation's toxic waste sites. Superfund, which is administered by the EPA, was

amended by the Superfund Amendment and Reauthorization Act (SARA), Title III (community right-to-know laws), in 1986. Title III states that past and present owners of land contaminated with hazardous substances will be held liable for the cost of the cleanup, with certain exceptions.

A hazardous substance is defined pursuant to CERCLA 42 United States Code 9601 (14), and interpreted by EPA regulations and the courts as:

1. Any substance designated pursuant to Section 1321(b)(2)(A) of Title 33 of the Code of Federal Regulations.
2. Any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of CERCLA.

Federal regulations, implemented primarily by the federal government, apply to public and private activities.

The EPA maintains the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database to help keep track of known contamination sites. It contains data on potentially hazardous waste sites that have been reported to the EPA by states, local jurisdictions, and others under CERCLA. This list is commonly referenced during predevelopment site investigations to determine whether a site may be contaminated.

(b) State Regulations

In California, state regulations governing hazardous materials are equal to or more stringent than federal regulations. The state has been granted primary oversight responsibility by the EPA to administer and enforce hazardous waste management programs. State regulations have detailed planning and management requirements to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several key state laws pertaining to hazardous wastes are discussed below. In addition, the DTSC, the SWRCB, and the Integrated Waste Management Act regulate the generation and disposal of hazardous materials, as described below.

The Hazardous Materials Release Response Plans and Inventory Act of 1985 (Section 25500 et seq. of the CHSC, also known as the Business Plan Act) requires businesses using hazardous materials to prepare a plan that describes their facilities, identifies materials, and describes their emergency response plans and training programs. Hazardous materials are defined as raw or unused materials that are part of a process or manufacturing step; they are not considered hazardous wastes. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous wastes. Often, the facilities subject to this act also generate hazardous wastes. The plan and related reports are filed with the county. The required plan also informs emergency responders of hazardous materials.

The Hazardous Waste Control Act (HWCA) created the state hazardous waste management program, which is similar to, but more stringent than, the federal RCRA program. The HWCA is implemented by regulations contained in

California Code of Regulations Title 26, which describes requirements for the proper management of hazardous wastes. This includes criteria for:

1. identification and classification;
2. generation and transportation;
3. the design and permitting of recycling, treatment, storage, and disposal facilities;
4. treatment standards;
5. the operation of facilities and staff training; and
6. the closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such wastes. Pursuant to the HWCA and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter and to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

Under the Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Quick responses to incidents involving hazardous materials or hazardous waste are a key part of the plan, which is administered by the California Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the EPA, the California Highway Patrol, RWQCBs, air quality management districts, and county disaster response offices.

Various other state regulations affect hazardous waste management. These include the regulations described below.

The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) requires the labeling of substances known or suspected by the state to cause cancer.

California Government Code Section 65962.5 requires the DTSC to compile a list of potentially contaminated sites in the state (the Cortese List). The purpose of this legislation is to inform local agencies of the existence of these sites.

The DTSC and the SWRCB list hazardous sites selected for remedial action and USTs with a reported unauthorized release of toxic materials. UST cleanup is administered locally, with the SWRCB providing oversight.

The CIWMB lists all solid waste disposal facilities from which there is known migration of hazardous substances. The CIWMB also administers the California Integrated Waste Management Act, which, among other things, oversees the development and implementation of household hazardous waste disposal plans. The CIWMB enforces solid waste facilities' operational plans.

The California Environmental Protection Agency is authorized to endow qualifying local agencies with oversight and permitting responsibility for certain state programs. The agency oversees the implementation of the Unified Program, which was created by state legislation in 1993 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs:

1. hazardous materials release response plans and inventories (business plans),
2. the California Accidental Release Prevention (CalARP) Program,
3. the UST program,
4. Aboveground Petroleum Storage Act requirements for spill prevention, control and countermeasure (SPCC) plans,
5. hazardous waste generator and onsite hazardous waste treatment (tiered permitting) programs, and
6. California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.

(c) Stanislaus County Policies

Pursuant to the Integrated Waste Management Act, each county within the state is required to adopt a county integrated waste management plan (CIWMP), part of which addresses the handling of household hazardous wastes, such as paint, motor oil, and cleaning solutions. The household hazardous waste elements for each city and the county identify programs for the safe collection, recycling, treatment, and disposal of hazardous waste. County policies, as summarized below, are relevant because they manage development in unincorporated areas within the study area.

- HM-1:** The *Stanislaus County General Plan* (County General Plan) Safety Element minimizes the effects of hazardous conditions that might cause a loss of life and property. The County Environmental Resources Department investigates all such sites to determine the degree of contamination and the level of cleanup needed. The County works closely with the DTSC and the RWQCB during all phases of the site investigation.
- HM-2:** The County is Certified Unified Program Agency—authorized by the DTSC to administer a number of state programs at the local level. It regulates hazardous materials within its incorporated areas (including Modesto) and unincorporated areas. The County's role includes taking the following actions (Stanislaus County 2007).
1. Implement risk management and prevention laws to minimize chemical releases in the community.
 2. Maintain a hazardous materials response team to assist police and fire agencies during transportation and industrial accidents involving chemical spills.
 3. Prepare and implement the County's area plan for emergency responses to chemical spills in the community.
 4. Permit and inspect the removal of USTs.

5. Permit and monitor new USTs.
6. Oversee site investigation for soil and groundwater contamination and cleanup.
7. Inspect hazardous waste generators.
8. Review procedures for the storage, treatment, and disposal of hazardous wastes.
9. Prepare and implement the County's hazardous waste management plan.
10. Develop and implement the County's Household Hazardous Waste collection program.
11. Inspect medical facilities to ensure compliance with state medical waste management laws.
12. Implement hazardous materials disclosure laws (business plans) to ensure access to information about chemicals handled by businesses.

(d) City of Modesto Policies

The UAGP policies for hazardous materials management apply to development within incorporated areas. These policies identify programs for the safe collection, recycling, treatment and disposal of hazardous wastes generated within Modesto. The applicable UAGP policies are listed below.

- HM-3:** The City shall comply with all existing federal and state laws which regulate the generation, transportation, storage, and disposal of hazardous materials. (UAGP Policy V-M.2[a])
- HM-4:** The City of Modesto should require that businesses and industries using hazardous material provide mitigation measures commensurate with the hazards they bring to the community, in accordance with the applicable Articles and Sections of the most current adopted edition of the Uniform Fire Code. (UAGP Policy V-M.2[b])
- HM-5:** In the event that site inspection or construction activities uncover chemical contamination, underground storage tanks, abandoned drums, or other hazardous materials or wastes at a parcel, the inspection report preparer shall so notify the City. The City shall notify the County Health Services Department. Under the direction of these agencies, a site remediation plan shall be prepared by the project applicant.

The plan would (1) specify measures to be taken to protect workers and the public from exposure to potential site hazards and (2) certify that the proposed remediation measures would clean up the wastes, dispose the wastes, and protect public health in accordance with federal, state, and local requirements. Permitting or work in the areas of potential hazard shall not proceed until the site remediation plan is on file with the City.

If a parcel is found to be contaminated to a level that prohibits the proposed use, the potential for reduction of the hazard should be evaluated. Site remediation is theoretically capable of removing hazards to levels sufficiently low to allow any use at the site. In practice, both the technical feasibility of the remediation and its cost (financial feasibility) should be evaluated in order to determine the overall feasibility of locating a specific use on a specific site. In some cases, it may require restriction to industrial use or a use that involves complete paving and covering of the parcel.

In accordance with [Occupational Safety and Health Administration] requirements, any activity performed at a contaminated site shall be preceded by preparation of a separate site health and safety plan (prepared by the project applicant and filed with

the City) for the protection of workers and the public. All reports, plans, and other documentation shall be added to the administrative record. (UAGP Policy V-M.2[c])

- HM-6:** For each specific project that would generate hazardous waste, the City shall require as a condition of building permit and/or business license approval that the project sponsor prepare a hazardous material transportation program. The transportation program shall identify the location of the new facility or use and designate either (1) specific routes to be used for transport of hazardous materials and wastes to and from the facility, or (2) specific routes to be avoided during transport of hazardous materials and wastes to and from the facility. Routes would be selected to minimize proximity to sensitive receptors to the greatest practical degree. Passage through residential streets should be minimized and parking of waste haulers on residential streets should be prohibited. The City Fire Department shall review and approve the applicant's hazardous materials transportation program or, working with the applicant, modify it to the satisfaction of both parties. (UAGP Policy V-M.2[d])
- HM-7:** The City will continue to participate in the existing Household Hazardous Waste Programs, including support of the drop-off facility, continued public information, participation in the oil and battery collection programs, and implementation and enforcement of existing and new regulations regarding electronic and universal waste legislation. (UAGP Policy V-L.2[b])
- HM-8:** The City will continue to comply with Stanislaus County's Hazardous Waste Management Plan. (UAGP Policy V-L.2[c])
- HM-9:** Prior to the issuance of all building permits, the City shall identify the site in relation to all CERCLIS sites and to known or suspected uncontrolled or abandoned hazardous waste sites. All projects within 2,000 feet of these facilities shall conduct hazardous materials studies as necessary to identify the type and extent of contamination, if any, and the extent of risk to human health and public safety. If necessary, a remedial action program would be developed and implemented as in [UAGP Policy V-M.2(c)]. (UAGP Policy V-M.2[e])

I. Storm Water Drainage Policies—Baseline Developed Area

- HM-10:** One-third of the Baseline Developed Area is served by "rockwells." New rockwells shall be allowed only under very limited circumstances. New storm drainage in the Baseline Developed Area shall be by means of positive storm drainage systems unless otherwise approved by the City Engineer.

The new storm drainage facilities shall consider the drainage facility requirements presented in Table IX-1 of the Final Master Environmental Impact Report and the SDMP. This policy applies to both positive storm drainage systems, and to new rockwells (which are generally discouraged) in the Baseline Developed Area. (UAGP Policy V-E.3[a])
- HM-11:** MID shall be consulted during the preparation of drainage studies required by this General Plan. (UAGP Policy V-E.3[b])
- HM-12:** The City shall prevent water pollution from urban storm runoff as established by the Central Valley Regional Water Quality Control Board Basin Plan for surface discharges and Environmental Protection Agency for underground injection. (UAGP Policy V-E.3[c])
- HM-13:** Storm water drainage facilities shall be constructed, operated, maintained and replaced in a manner that will provide the best possible service to the public, as required by federal and state laws and regulations. In developing implementation plans, consideration shall be given to rehabilitation of existing facilities, remediation

of developed areas with inadequate levels of drainage service, and the timely expansion of the system for future development. (UAGP Policy V-E.3[d])

- HM-14:** The City shall update and maintain its Storm Drainage Master Plan to cover the entire area within the City's Sphere of Influence. The City of Modesto shall adopt the Storm Drainage Master Plan, in consultation with Stanislaus County, MID, and TID, to address the projected cumulative flows that would be discharged to MID and TID facilities from the urbanized drainage areas. The master drainage program should include the procedures for planning, evaluation, and design of necessary stormwater drainage facilities to ensure that facilities are capable of accommodating the additional flows. The master drainage program should include capital improvement, operations, and maintenance-financing plans necessary to ensure that facilities are constructed in a timely fashion to reduce the impacts from potential flooding problems. (UAGP Policy V-E.3[e])
- HM-15:** New development shall comply with City requirements for conveyance, retention and detention. New development shall include onsite storage of stormwater as necessary. Rockwells shall not be allowed for new development except at infill areas smaller than three acres where no other feasible alternative is available. (UAGP Policy V-E.3[f])
- HM-16:** The City Engineer may require storm water drainage infrastructure master plans for the public infrastructure or when otherwise pertinent to provision of service at adopted service levels for the specific plan areas or other projects depending on site issues and location. (UAGP Policy V-E.3[g])
- HM-17:** Construction activities shall comply with the requirements of the City's Storm Water Management Plan under its municipal NPDES stormwater permit, and the State Water Resources Control Board's General Permit for Discharges of Storm Water Associated with Construction Activity. (UAGP Policy V-E.3[h])
- HM-18:** For developments within a mapped 100-year floodplain, studies shall be prepared that demonstrate how the development will comply with both the construction and post-construction programs under the City's municipal NPDES permit. Developments in these areas shall not lead to increased erosion or releases of other contaminants that would cause violations of the City's municipal NPDES permit. (UAGP Policy V-E.3[i])
- HM-19:** The City shall ensure that new development complies with the City of Modesto's *Stormwater Management Program: Guidance Manual for New Development Stormwater Quality Control Measures*. (UAGP Policy V-E.3[j])

2. Storm Water Drainage Policies—Planned Urbanizing Area

- HM-20:** All of the Storm Water Drainage Policies for the Baseline Developed Area apply within the Planned Urbanizing Area. (UAGP Policy V-E.4[a])
- HM-21:** The City of Modesto shall require each new development area to be served with positive storm drainage systems. A positive storm drainage system may be comprised of catch basins, pipe lines, channels, recharge/detention basins and pumping facilities which discharge storm water to surface waters. New detention basins must typically include new technologies in their design that allow for full, healthy and sustainable landscaping. The City of Modesto *Design Standards for Dual Use Flood Control / Recreation Facilities* manual is the guiding document for the development of these facilities. The positive storm drainage facilities shall consider the requirements presented in Table IX-1 of the Final Master Environmental Impact Report and the SDMP. (UAGP Policy V-E.4[b])

- HM-22:** The City of Modesto shall require positive storm drainage facilities in the Planned Urbanizing Area. Recharge shall be typically accomplished at recharge/detention basins, designed to be in compliance with applicable federal and state water quality regulations for both groundwater and surface water. (UAGP Policy V-E.4[c])
- HM-23:** Where feasible, dual-use flood control/recreation facilities shall be developed (dual-use facilities) as part of the storm drainage system. Dual-use facilities maximize efficient use of land and funds by satisfying needs for water quality, flood control, recreation and aesthetics within a single consolidated facility. (UAGP Policy V-E.4[d])
- HM-24:** Dual-use facilities shall be designed and constructed in accordance with the standards in the *City of Modesto Design Standards for Dual Use Flood Control/Recreation Facilities* manual and the Open Space and Parks/Planned Urbanizing Area Policy e. (UAGP Policy V-E.4[e])
- HM-25:** New developments shall be required to implement an appropriate selection of permanent pollution control measures in accordance with the City's implementation policies for the municipal NPDES stormwater permit. Permanent erosion control measures such as seeding and planting vegetation for new cut-and-fill slopes, directing runoff through vegetation, or otherwise reducing the offsite discharge of particulates and sediment are the most effective method of controlling offsite discharges of urban pollutants. (UAGP Policy V-E.4[f])
- HM-26:** Applicants for building permits shall determine that a site containing or formerly containing residences or farm buildings/structures has been fully investigated for the presence of hazardous materials or wastes prior to issuance of the permit. Investigation shall consist of, at minimum, a Phase I environmental site assessment and a Phase II site assessment, if found necessary as a result of the Phase I assessment. The findings of the site assessment shall be reported to the City and the County's Department of Environmental Resources. The appropriate remediation shall occur prior to final occupancy of the approved development. (UAGP Policy V-M.2[f])

4. Policies Which Avoid Impacts

The following policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the planning area as it is annexed and develops. County policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed, and the full text of these policies or policy summaries is found in Section A-3.a(3) above, *Existing Policies Applying to the Study Area*.

a. Stanislaus County Policies

The territory outside the city limits is under County jurisdiction. The County has jurisdiction within Modesto in order to apply toxic materials regulations. The County General Plan has the following applicable policies: HM-1 and HM-2.

b. City of Modesto

The City's proposed UAGP policies and other adopted City policies and regulations related to hazardous materials include: HM-3 through HM-26.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

1. Thresholds of Significance Suggested by the California Environmental Quality Act

The following excerpts from the State CEQA Guidelines were selected as reference points for significant impacts of hazardous materials. The UAGP would have a significant effect on hazardous materials within Modesto if it would or may:

- a. attract people to a location and expose them to hazards found there (State CEQA Guidelines Section 15126); or
- b. create a potential public health hazard or involve the use, production, or disposal of materials that pose a hazard to people or animal or plant populations within the area affected (State CEQA Guidelines Appendix G[VII]).

2. Threshold of Significance Suggested by Other Analytical Methods

Federal and state law, as described above, are established to avoid the exposure of human beings and the environment to toxic and hazardous materials. Exposure to hazardous or toxic materials or wastes at levels exceeding accepted federal and state standards would be a significant effect.

3. Threshold of Significance Adopted by the City of Modesto

After consideration of the methodological approaches suggested by the State CEQA Guidelines and the County, the City has chosen to adopt the following standard of significance.

Impacts will be significant if any proposed development involves an unauthorized release of the generation, use, storage, or transport of any hazardous waste or if the project is located within or adjacent to a site known to have been contaminated with toxic or hazardous substances that has not been remediated.

4. Significant Direct Impacts

The impacts of the project relative to hazardous materials are less than significant, based on the existing regulatory framework and the mitigation measure provided below. The contaminated sites identified earlier in this section are being remediated and therefore would not result in a release of hazardous materials. New development would be required to comply with regulations monitoring and controlling the handling and use of hazardous and toxic materials. As a result, the project would not create new impacts.

Operational requirements placed on the Fink Road landfill by the CIWMB and oversight of discharge permits by the Central Valley RWQCB avoid the release of materials from that source. Therefore, this impact is less than significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects; whether the project will make a cumulatively considerable contribution to any such effects; and, if it will, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may make a considerable contribution to a cumulative effect nonetheless.

A cumulative impact analysis first identifies whether a cumulatively significant effect exists in the given resource area. If one does, the analysis determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

The cumulative impact of past activities is locally significant where spills or contamination have occurred. However, future development under the UAGP would not make a considerable contribution to that impact, provided that the development complies with the existing regulatory scheme and proposed UAGP policies.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

Soil and groundwater can become contaminated through a variety of sources, including accidental spills, disposal on the ground surface, leaks in sewers and UST systems, and other releases. Any proposed site-specific project within the City's UAGP update boundary must comply with federal, state, regional, and local laws that regulate the generation, transportation, storage and disposal of hazardous materials. No potential hazardous materials impacts can be identified for these future projects without entering into speculation, because the impacts will be determined by project characteristics that cannot be known at this time.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The generation, transportation, storage, and disposal of hazardous materials within the Baseline Developed Area and the Planned Urbanizing Area cannot be completely eliminated. However, the

release of hazardous materials can be controlled and reduced to a less-than-significant level through adherence to County and City policies and regulations, including HM-1 through HM-26.

2. Measures Which Mitigate Cumulative Impacts

No further mitigation is required for cumulative impacts, and cumulative impact analysis for the generation of hazardous materials would not be required for any anticipated subsequent projects that require a mitigated negative declaration (Section 21157.5 of the Public Resources Code [PRC]) or a focused EIR (Section 21158 PRC).

3. Alternatives to the Proposed Project

Alternatives to the project must be examined when such alternatives would avoid or substantially reduce one or more of the significant impacts of the project. (State CEQA Guidelines Section 15126.6.) No significant hazardous materials impacts have been identified; therefore, no alternatives are proposed.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report on General Plan implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

The City currently is operating under federal, state, and local programs and policies that regulate and manage hazardous materials within the study area. As a result, any new development under the UAGP would be in compliance with the provisions set forth in these policies and programs.

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on hazardous materials as long as the circumstances below have not changed.

1. The lead agency for subsequent projects will be the City or any responsible agency identified in the Master EIR.
2. The preceding policies, or policies of equal or stricter application, continue to be in force to reduce, avoid, or mitigate impacts.
3. There is no evidence that the project site is polluted with toxic materials or hazardous wastes, and no remediation has taken place.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section, *Generation of Hazardous Materials*, is current as long as the following circumstances have not occurred.

1. New sources of toxic materials or hazardous waste contamination or contaminated sites are discovered within the study area.
2. New laws or regulations increase the significance of currently acceptable levels of background contamination.
3. Additional materials currently not considered toxic or hazardous are declared to be so through governmental legislation, rule, or regulation.

Section 17

Geology, Soils, and Mineral Resources

This section summarizes the City's geologic setting and describes how development associated with the *City of Modesto Urban Area General Plan (UAGP)* would affect the potential exposure of new population and employees to earthquake and earthquake-related hazards, including liquefaction. It also addresses the potential effects of implementing the development envisioned in the UAGP on the extraction of mineral resources. If significant impacts are found, mitigation measures are provided to reduce those impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on potential for landslides and seismic activity is the City of Modesto's (City's) planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The pertinent plan used for this purpose is the UAGP. The study area for cumulative impacts related to geology, geologic hazards, and mineral resources is defined as Stanislaus County.

3. Existing Physical Conditions in the Study Areas

a. Overview

Modesto is situated at the northern end of the San Joaquin Valley, a deep, structurally controlled trough that is bounded on the north by the Sacramento Valley, on the east by the Sierra Nevada, on the south by the San Emigdio and Tehachapi Mountains, and on the west by the Coast Ranges uplift.

The San Joaquin Valley is floored by a complexly layered sequence of sedimentary deposits that reaches an estimated thickness of 11,000 feet in the vicinity of Modesto (Page 1986). Under the eastern and central portions of the valley, the base of the sequence likely rests on Mesozoic crystalline rock allied to the plutons of the Sierra Nevada; to the west, basement

rocks are believed to be mafic and ultramafic rocks of Jurassic age. These basement rocks are immediately overlain by marine and continental (nonmarine) sedimentary rocks of Cretaceous and Tertiary age consisting mainly of sandstone, sand, siltstone, and shale, which in turn are overlain by Quaternary (Pleistocene and Holocene) alluvial and fluvial deposits of sand, gravel, silt, and clay (Norris and Webb 1990; Bartow 1991).

Modesto is situated primarily on alluvial fan deposits of Pleistocene age, but limited areas in the southeastern portion of Modesto are within the active floodplains of the Tuolumne River and Dry Creek and are underlain by younger (Holocene) alluvium. To the west of the City, the central portion of the Coast Ranges uplift is predominantly formed by exposed Franciscan Complex rocks of Jurassic through early Tertiary age. The range front to the west consists of a narrow belt of marine and nonmarine sedimentary rocks of post-Franciscan Tertiary age. To the east of Modesto, the exposed ridges and slopes of the Sierra Nevada are composed primarily of Mesozoic and plutonic rocks, flanked along the valley margin by deeply dissected exposures of marine and nonmarine sedimentary rocks of Tertiary age (Bartow 1991).

b. Soils

Soils in the Modesto area range from hardpan soils on older alluvial fans and terraces to deep, highly fertile soils on younger alluvial fans (U.S. Department of Agriculture 1964).

Four soil associations are mapped as occurring in the project area: the San Joaquin–Madera association, the Hanford-Tujunga association, the Modesto-Chualar association, and the Dinuba-Hanford association. Soils of the San Joaquin–Madera Association consist of hardpan soils on moderately old fans and terraces. These soils are typically well-drained sandy loams, loams, and clay loams with very slow permeability, slight erosion hazard, and very slow to slow runoff (U.S. Department of Agriculture 1964). Soils of the older Pleistocene fans and terraces are typically above the area's active drainages and are not subject to flooding or active alluvial deposition.

Soils of the Hanford-Tujunga association occur on young alluvial fans and in actively flooded bottomlands in the vicinity of the Stanislaus and Tuolumne Rivers. These soils consist of well-drained sandy loams and fine sandy loams and are characterized by moderately rapid to very rapid permeability, slight erosion hazard, and very slow runoff (U.S. Department of Agriculture 1964).

Soils of the Modesto-Chualar association are restricted to the outer margins of the Stanislaus River fan and the inter-fan areas between the Stanislaus and Tuolumne Rivers. These soils are generally moderately well-drained sandy to clay loams with very slow to slow permeability, slight erosion hazard, and very slow runoff (U.S. Department of Agriculture 1964).

The Dinuba-Hanford association comprises moderately deep to deep soils on fans of the Stanislaus and Tuolumne Rivers. These soils are generally imperfectly drained, moderately deep to deep sandy loams that exhibit a moderate permeability, slight erosion hazard, and very slow runoff (U.S. Department of Agriculture 1964).

c. Mineral Resources

Historic mineral production in Stanislaus County has included construction materials (sand and gravel), industrial minerals (diatomite, clay, mineral pigments, magnesite, quartz, and dimension stone), and metallic minerals (chromite, placer gold, manganese, mercury, platinum, and silver) (California Department of Conservation, Division of Mines and Geology 1993). However, the only mineral commodities that are mined actively in Stanislaus County are sand and gravel.

No areas classified as Mineral Resource Zones (MRZ-2a or MRZ-2b) under the Surface Mining and Reclamation Act—that is, areas where significant mineral deposits have been determined to exist—occur within the planning area. (These classifications are described further in the *State Policies* section below.) Modesto is entirely within an area zoned MRZ-3a for sand and gravel (California Department of Conservation, Division of Mines and Geology 1993). This designation indicates areas containing known mineral occurrences of undetermined significance. As recently as 1998, there were five active sand and gravel operations and one specialty sand mining operation in Modesto (California Department of Conservation, Division of Mines and Geology 1999). However, no mining activity occurs in Modesto, and data from the U.S. Geological Survey regarding mineral production in California indicate that no new mines or expansions of existing mines were approved in Modesto between 1999 and 2006 (Kohler 2005, 2006; U.S. Geological Survey 1999, 2000, 2001, 2002, 2003, 2004).

d. Landslides and Erosion

Historically, landslides in Stanislaus County have occurred primarily in the Diablo Range in the western portion of the county, where steep slopes and unstable geologic conditions have presented a substantial limitation to development (Stanislaus County 1987). By contrast, the regional slope in the vicinity of Modesto is on the order of 0.001 vertical foot of change per foot of horizontal distance (0.1% slope). Local slopes may approach 8% in areas where former sand dunes are located. Because the planning area is generally level, it is not subject to landslides.

As discussed above, the soils in the planning area typically have a slight erosion potential, and the overall erosion hazard in Modesto is considered low. However, wind or rain may cause erosion when soils are exposed during construction activities and when fields are left fallow. Erosion also may occur along streams or rivers during storm events, resulting in locally significant bank failures if the banks are not stabilized. Streambank erosion is restricted to areas immediately adjacent to the Stanislaus River, Tuolumne River, and Dry Creek and typically is not considered a significant problem in Modesto because of control of discharge in the upper reaches of the rivers, stabilization of banks, and restrictions on construction in their vicinity (Rivera pers. comm.).

e. Expansive Soils

Expansive soils are those that contain a substantial proportion of clay minerals that swell under wet conditions and shrink under dry conditions. Expansion and contraction as a result

of wetting and drying has the potential to damage improperly designed or constructed facilities, including foundations, freestanding structures, pavement, and concrete slabs.

Information on the engineering properties of soils in Modesto is not readily available, but where soils are clay-rich, there may be some potential for expansive soils. Concerns related to development on expansive soils typically can be addressed through appropriate design. As discussed in the *Significant Direct Impacts* section below, impacts related to the location of new development on expansive soils within the planning area would be assessed through the City's development review process, and mitigated through conformance with the most recent California Building Code (Title 24 California Code of Regulations [CCR]) standards and requirements for site-specific geotechnical studies.

f. Seismic Hazards

(1) Key Terms and Concepts

Earthquake activity is associated with several types of seismic hazards. The State of California divides these into primary seismic hazards (surface fault rupture and ground shaking) and secondary seismic hazards (liquefaction and other types of seismically induced ground failure, along with seismically induced landslides). Key terms are defined below.

Surface fault rupture refers to rupture, breakage, or disruption at the ground surface that occurs as a result of movement (slip) along an active fault.

Ground shaking results from the release of energy during an earthquake. Ground shaking is most intense at the earthquake epicenter; in general, ground shaking decreases with increasing distance from the epicenter. The nature of subsurface materials also influences the strength and duration of ground shaking in an earthquake.

The intensity of ground shaking in an earthquake can be described in terms of the Modified Mercalli Intensity Scale, which assigns a range of intensity values based on the observed effects of ground shaking on people, buildings, and the natural environment. The scale's intensities are denoted by Roman numerals ranging from I (shaking that is essentially imperceptible) to XII (total damage).

The "size" of an earthquake also can be described in terms of its *magnitude*. Commonly used scales for earthquake magnitude include Richter magnitude and moment magnitude. The Richter magnitude scale is based on the degree of ground motion experienced as a result of the first seismic waves to affect an area. The moment magnitude scale relies on an event's seismic moment, a measure of earthquake strength as a function of the extent (area) of fault rupture, the average displacement or slip on the ruptured surface, and the rigidity of the rock materials ruptured.

Liquefaction is a phenomenon in which unconsolidated materials (soil or sediment) lose cohesion and behave as a liquid, typically as a result of earthquake shaking. Liquefaction typically occurs in sandy materials that are saturated with groundwater and is restricted to the upper 50 feet below ground surface. Liquefaction poses a

hazard to structures (hence to life and safety) because liquefied materials lose their strength and may become unable to support structures built on them. This can result in severe structural damage, particularly in poorly designed or constructed structures.

(2) Primary Seismic Hazards—Surface Fault Rupture and Groundshaking

No faults in the Modesto area are recognized as active by the State of California and zoned pursuant to the Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act, defined further under *State Policies* below) (Hart and Bryant 1997), nor is the Modesto area traversed by any faults recognized by the Uniform Building Code (UBC) as active (International Conference of Building Officials 1997).

The only active fault reported in Stanislaus County is the Tesla-Ortogonalita fault, which is located approximately 20 miles west of Modesto (see Figure V-17-1). Based on geomorphic evidence and results of trench studies, the Ortogonalita fault is believed to experience right-lateral strike-slip motion and is likely capable of generating earthquakes with a Richter scale magnitude of 6.5 to 6.75. The recurrence interval for large magnitude events on the Ortogonalita is inferred to be 2,000–5,000 years on the fault as a whole and 10,000–25,000 years on individual fault segments (Anderson et al. 1982) (see Table V-17-1). The UBC (International Conference of Building Officials 1997) characterizes the Ortogonalita fault as a Type B seismic source. The UBC evaluates the risk associated with active faults based on their potential to generate large earthquakes (measured as the moment magnitude for the largest earthquake anticipated on the fault) and their degree of seismic activity (measured as average annual slip rate). Under this system, a Type A seismic source is a fault that is capable of producing large-magnitude events ($> M 7.0$) and is highly active (has a high average annual slip rate). A Type B seismic source is associated with smaller maximum events and/or is less active but still constitutes a substantial seismic threat (International Conference of Building Officials 1997). It is not known to experience fault creep.

Other active faults in the surrounding region include the Greenville fault, located approximately 35 miles northwest of Modesto; the Calaveras and Concord faults, located approximately 50 miles west of Modesto; the Hayward fault, located about 60 miles west of Modesto; and the San Andreas fault, approximately 75 miles west of Modesto.

Based on information furnished by the Department of Mines and Geology (now the California Geological Survey) and the Office of Emergency Services, earthquakes typical of surrounding-area faults are capable of producing ground shaking to an intensity of VI or VII on the Modified Mercalli Intensity Scale (Stanislaus County 1987). Based on this scale, slight structural damage would occur as a result of an intensity-VI earthquake. Damage from an intensity-VII earthquake would be negligible in buildings of good construction and design, slight to moderate in well-built ordinary structures, and considerable in poorly built or badly designed structures (U.S. Geological Survey 2007; Wood and Neuman 1931).

Table V-17-1. Maximum Credible Earthquake and UBC Seismic Source Type for Principal Active Faults in the Region Surrounding Planning Area

Fault	Magnitude of Maximum Credible Earthquake	UBC Seismic Source Type
Ortogonalita	6.5–6.75 ^b , 6.9 ^a	B ^a
San Andreas	7.0–7.9 ^a	A ^a
Hayward	Entire fault: 7.1 ^a Southern segment: 6.5 ^a	A ^a B ^a
Calaveras (southern)	6.2 ^a	B ^a
Greenville	6.9 ^a	B ^a
Concord–Green Valley	6.9 ^a	B ^a

Note: See Figure V-17-1 for fault locations.

^a Source: International Conference of Building Officials 1997.

^b Source: Anderson et al. 1982.

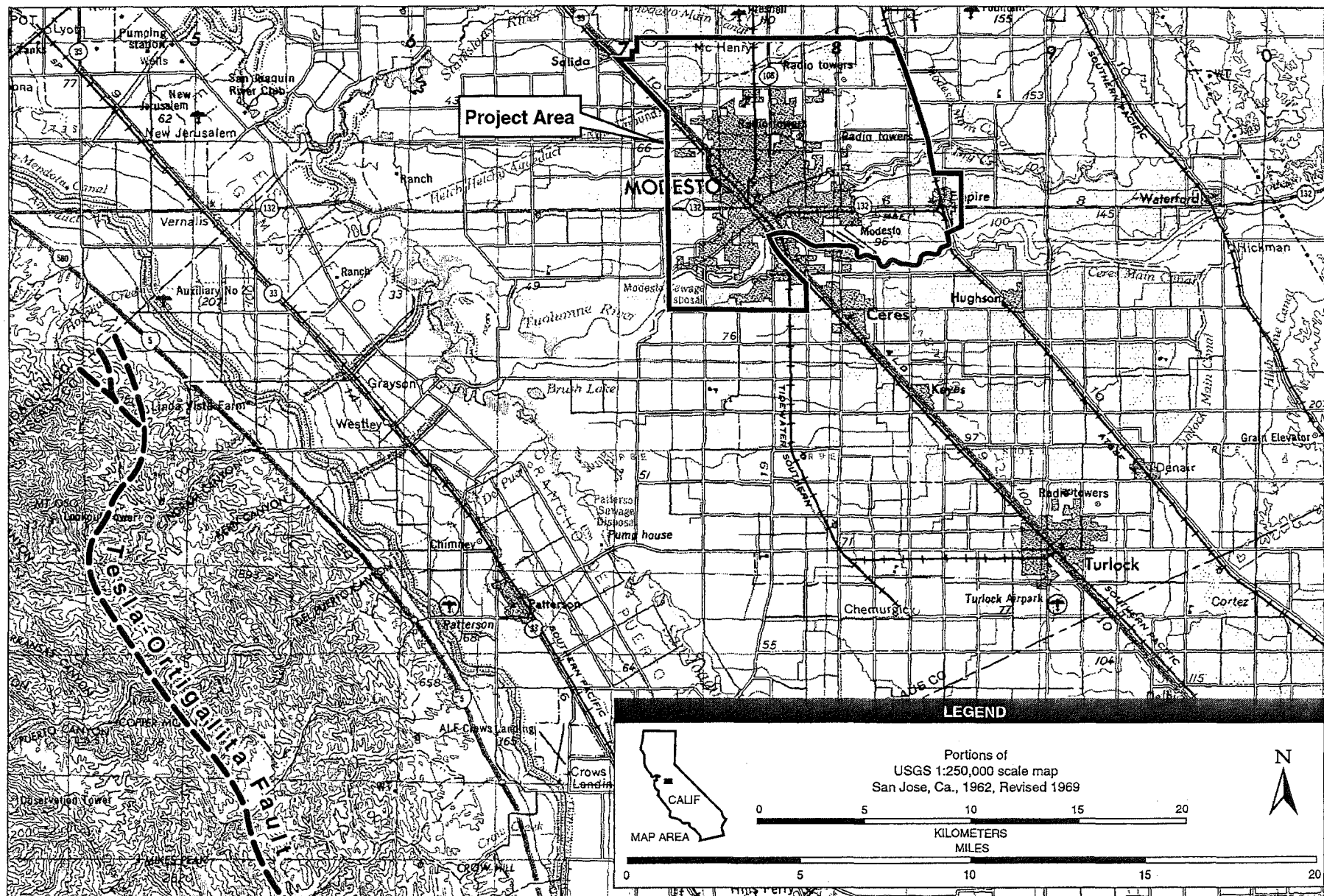
(3) Secondary Seismic Hazards—Liquefaction and Ground Failure

The potential for liquefaction to occur in the Modesto area has not yet been evaluated by the State of California under the Seismic Hazards Mapping Act (California Geological Survey 2007). However, much of the substrate in the planning area consists of young, unconsolidated alluvial and fluvial (river) deposits, and groundwater data from wells in Modesto show the depth to groundwater as ranging from approximately 11.7 to 62.5 feet, based on measurements taken in November 2006 (California Department of Water Resources 2007b). Such soil and groundwater conditions may present a liquefaction hazard in portions of the planning area.

4. Existing Policies Applying to the Study Areas

Below is a comprehensive list of major federal, state, and local regulations and policies or summaries of policies that apply to the study areas. This list summarizes the full range of applicable policies that a project within the study areas would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances assumed for the master environmental impact report (Master EIR) analysis of impacts related to geology, soils, and geologic hazards.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Geology, Soils, and Mineral Resources policies are designated as GSM-X, where X is the discrete number).



a Federal Policies

The Federal Emergency Management Agency (FEMA) provides emergency relief to victims of natural disasters such as earthquakes and landslides. However, FEMA has not established federal regulations that relate to geologic hazard abatement or limit geologic hazard liabilities.

b State Policies

California's Alquist-Priolo Act (Public Resources Code [PRC] Section 2621 et seq.) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). Under the Alquist-Priolo Act, faults are zoned, and construction along or across them is strictly regulated if they are "sufficiently active" and "well defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during the Holocene time (defined for purposes of the Alquist-Priolo Act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be identified clearly by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant 1997).

The Seismic Hazards Mapping Act of 1990 directs the state to identify and map areas subject to earthquake hazards such as liquefaction, earthquake-induced landslides, and amplified ground shaking. Pursuant to this act, cities and counties are prohibited from issuing development permits for sites within seismic hazard zones until appropriate site-specific geologic or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans. Seismic hazard mapping has been prioritized to address coastal urban areas first, so no maps are currently available for Modesto's planning area.

The Surface Mining and Reclamation Act of 1975 (SMARA) was enacted in response to land use conflicts between urban growth and essential mineral production. It requires the California Geological Survey (formerly the California Division of Mines and Geology) to classify California lands into MRZs. The MRZ classifications are defined as follows.

- MRZ-1: areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2: areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- MRZ-3: areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: areas where available information is inadequate for assignment into any other MRZ.

Based on the MRZ zoning system, SMARA creates a framework for local government to consider the impacts of new development on the availability of mineral resources.

Government Code Section 65560 requires a general plan's open space element to protect "major mineral deposits."

The California Building Code (24 CCR) is adopted and regularly updated by the California Building Standards Commission. The 2007 edition will take effect on January 1, 2008. The commission is established under the California Building Standards Law (Health and Safety Code Sections 18901–18949.6) to adopt and publish a standardized set of building codes. These building codes serve as the comprehensive standards for the design and construction of buildings in California and include (among other things) provisions for seismic safety, foundation stability, and energy conservation.

The California Building Code is based on the UBC, a model code adopted by the International Conference of Building Officials (International Conference of Building Officials 1997). The UBC classifies seismic risk zones ranging from 0 to 4, with building standards increasing in stringency accordingly. The California Building Code includes additional requirements beyond the UBC because of the state's history of seismic activity. Section 1802A.6.1.1 of the California Building Code (effective January 1, 2008) provides that a geologic engineering report is required of all construction except for one-story wood frame or light steel frame buildings of 4,000 square feet or smaller that are located outside seismic hazard zones.

Hospitals and other medical facilities with surgery or emergency treatment areas that are needed for emergency purposes must upgrade to state seismic safety standards under the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983. Enforcement of this program is the responsibility of the Office of Statewide Health Planning and Development. (Health and Safety Code Section 129675 et seq.)

School facilities are required to meet special seismic safety standards under the "Field Act" and are not subject to local building standards. Enforcement of this program is the responsibility of the California Department of General Services, Division of the State Architect.

c. Local Policies

The City has adopted the California Building Code, as have Stanislaus County (the County) and numerous other cities within the county. Portions of the California Building Code and UBC that have been adopted by the City and that are particularly relevant to geology and geologic hazards include California Building Code Chapter 16, Division IV (Structural Design Requirements—Earthquake Design), and Chapter 33 (Site Work, Demolition, and Grading), in addition to Appendix Chapter 33 (Excavation and Grading).

Stanislaus County, including Modesto, is within the UBC's Seismic Zone 3; accordingly, any future development in the planning area is required to comply with all UBC Seismic Zone 3 design standards.

The City's Grading and Erosion Control Ordinance (Section 5-10.301 et seq., Modesto Municipal Code) requires a grading and erosion control permit before any grading may occur that involves 350 cubic yards of soil or clears more than 0.5 acre of land. The City can

condition issuance of a permit to ensure that grading doesn't result in erosion or a release of soil off the site. Erosion is controlled further through the City's "Erosion and Sediment Control Standards for Construction Activities" adopted as part of the City's National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board (RWQCB). This establishes best management practices (BMPs) to avoid erosion.

The following sections describe policies specific to the City.

d. City of Modesto Policies

The UAGP provides the following policies related to geology, geologic hazards, and mineral resources.

- GSM-1:** The City shall continue to use building codes as the primary tool for reducing seismic risk in structures. The 2007 California Building Code, which has been adopted by Modesto, Stanislaus County, and other cities in the County, is intended to ensure that buildings resist major earthquakes of the intensity or severity of the strongest experience in California, without collapse, but with some structural as well as nonstructural damage. In most structures, it is expected that structural damage could be limited to repairable damage, even in a major earthquake. (UAGP Policy VI-B.2[a])
- GSM-2:** The City shall require all new buildings in the City to be built to the seismic requirements of the 2007 California Building Code (or subsequent editions). (UAGP Policy VI-B.2[b])
- GSM-3:** The City shall continue to explore measures to induce building owners to upgrade and retrofit structures to render them seismically safe. (UAGP Policy VI-B.2[c]).
- GSM-4:** The City shall enforce provisions of the Alquist-Priolo Earthquake Fault Zoning Act. (UAGP Policy VI-B.2[d])
- GSM-5:** The City shall develop programs to identify structures that do not currently meet building standard minimums for earthquake resistance and programs that would provide funding to rehabilitate these structures. (UAGP Policy VI-B.2[e])
- GSM-6:** Any construction that occurs as a result of the General Plan must conform with the current UBC regulations, which address seismic safety of new structures and slope requirements. As appropriate, the City will require a geotechnical analysis prior to tentative map approval in order to ascertain site-specific subsurface information necessary to estimate foundation conditions. These geotechnical studies should reference and make use of the most recent regional geologic maps available from the California Department of Conservation Division of Mines and Geology. (UAGP Policy VI-E.1[a])
- GSM-7:** The City shall discourage development on lands that are subject to landslides. (UAGP Policy VI-E.1[b])
- GSM-8:** New public roads in areas subject to landslides shall be designed to minimize landslide risks. (UAGP Policy VI-E.1[c])
- GSM-9:** All building permits shall be reviewed to ensure compliance with the current adopted edition of the California Fire Code, California Building Code, California Mechanical Code, California Electrical Code, California Plumbing Code, Title 19, Title 24, and the City of Modesto Municipal Code. (UAGP Policy VI-E.1[d])

- GSM-10:** The erosion control program shall include “best management practices” as appropriate, given the specific circumstances of the site and/or project. Table IX-2 in the Master Environmental Impact Report presents examples of best management practices. (UAGP Policy VI-E.2[b])
- GSM-11:** Sediment control basins to capture eroded sediments and contain them on the project sites shall be designed consistent with the criteria outlined in Table IX-3 in the Master Environmental Impact Report. (UAGP Policy VI-E.2[c])
- GSM-12:** The City shall promote public awareness of the following local routes for the public’s use in evacuating the City in the event of an emergency.
1. State Highways 99, 132, 219, and 108
 2. Briggsmore Avenue
 3. Claus Road
 4. Standiford/Sylvan Avenue
 5. Scenic Drive
 6. Pelandale Avenue
 7. Ninth Street
 8. Paradise Road
 9. Carpenter Road (UAGP Policy VI-E.5[a])
- GSM-13:** City plans and policies shall not interfere with any emergency evacuation and response plans. This would include the continued maintenance of adequate police and fire services, and identified emergency evacuation routes ([UAGP] Figure VI-3). (UAGP Policy VI-E.5[b])
- GSM-14:** The City shall ensure the provision of adequate and accessible evacuation routes. (UAGP Policy VI-E.5[c])

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area. The policy reference numbers are listed, and the full text of these policies is found in Section A-4, *Existing Policies Applying to the Study Areas*.

a. City of Modesto Policies

The UAGP provides the following policies related to geology, geologic hazards, and mineral resources: Baseline Developed Area and Planned Urbanizing Area: GSM-1 through GSM-14.

In addition, the City will comply with requirements of its Grading and Erosion Control Ordinance and the adopted “Erosion and Sediment Control Standards for Construction Activities.”

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA requires that agencies analyze effects on the environment of seismic and landslide hazards; a model checklist to guide analysis is provided in Appendix G of the State CEQA Guidelines. Consistent with this model checklist, impacts were identified as significant if a project would:

- a. expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - 1. rupture of a known earthquake fault (as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault),
 - 2. strong seismic ground shaking,
 - 3. seismic-related ground failure, including liquefaction, or
 - 4. landslides (including seismically induced landslides); or
- b. be located on expansive soil;
- c. result in substantial loss of topsoil resources;
- d. be located on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater;
- e. result in the loss of availability of known mineral resources that would be of value to the region and the state; or
- f. result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

2. Thresholds of Significance Suggested by Other Analytical Methods

The significance criteria suggested in Appendix G of the State CEQA Guidelines reflect the current standard of care for geotechnical engineering and engineering geology, along with the prevailing regulatory and planning context. Other analytical methods are not needed to identify additional thresholds of significance. However, evaluating whether a given impact rises to the level of significance under the criteria above may involve a wide range of analytical techniques used in the geotechnical engineering and engineering geologic disciplines.

3. Thresholds of Significance Adopted by the City of Modesto

The City adopts the thresholds set out in the State CEQA Guidelines, as modified above.

4. Significant Direct Impacts

The general level of risk related to seismic activity, soil conditions, and the loss of mineral resource availability is similar throughout the Modesto area, and approaches to avoid and mitigate impacts related to these conditions are also very similar regardless of the location within the city.

Therefore, significant direct impacts are not discussed specifically in terms of the City's Baseline Developed Area, Redevelopment Area, or Planning Urbanizing Area, but rather are evaluated based on the Modesto planning area.

a. Impacts Related to Primary Seismic Hazards

No faults known to be active or zoned as active by the State of California under the Alquist-Priolo Act are within the Modesto planning area. Consequently, the risk of surface fault rupture in Modesto is considered low, and related impacts currently are identified as less than significant. Nonetheless, policies GSM-1 through GSM-6 and GSM-9 commit the City to enforcing building standards and carrying out its enforcement responsibilities under the Alquist-Priolo Act. With this commitment in place, risks to new development and redevelopment under the updated UAGP as a result of surface fault rupture are also expected to be less than significant, even if active faulting is identified within the UAGP at some future time. No mitigation is required.

The planning area very likely will be subject to ground shaking as a result of earthquake activity on faults in the region, and there is some potential for significant impacts related to structural damage and concomitant hazards to safety and life. However, City policies GSM-1 through GSM-6 require all new structures to be designed and constructed to meet or exceed relevant building code requirements. Additional code compliance requirements specific to critical facilities (e.g., hospitals and schools) are established under state law and are administered by the state. Finally, where appropriate, the City will require the preparation of site-specific geotechnical investigations as a condition of subdivision approval and will hold the project proponent responsible for implementing the recommendations of the geotechnical investigation (policy GSM-6). Although there would be some residual risk, in any seismically active area, residual impacts are considered less than significant with these policies in place. No additional mitigation is required.

b. Impacts Related to Secondary Seismic Hazards

Because topography in the planning area is not hilly, the risk of seismically induced landsliding is considered low. However, the planning area may be at some risk related to liquefaction and other types of seismically induced ground failure. Much of the substrate in the planning area consists of young, unconsolidated alluvial and fluvial (river) deposits. In addition, depth to groundwater in the planning area ranges from approximately 11.7 feet to

62.5 feet, based on measurements taken in November 2006 (California Department of Water Resources 2007b). Therefore, conditions exist in the planning area that could result in seismic-related ground failure such as liquefaction, lateral spreading (lurching), and differential settlement, any of which could result in structural damage, potentially exposing people to a substantial risk of injury or death. However, the City has committed, through policy GSM-6, to require a site-specific geotechnical investigation for larger residential and remodel projects located in parts of the City potentially prone to liquefaction. With these provisions in place, impacts related to liquefaction hazard would be reduced, consistent with the prevailing standard of care in the state, and any residual impact is considered less than significant. No mitigation is required.

c. Impacts Related to Engineered Slope Stability

Although the Modesto area is not generally subject to landslides, localized slope failure in the planning area could occur if cut slopes and fill embankments created during new project construction are improperly designed and implemented. Potential geotechnical hazards associated with cut and fill activities would be minimized through policies GSM-1, GSM-4, GSM-7, and GSM-8, which require conformance to the most recent UBC standards and avoidance of landslide areas. Conformance to these policies and adherence to good grading and excavation practices would minimize the potential for failure of cut slopes and fill embankments, reducing related impacts to a less-than-significant level. No mitigation is required.

d. Impacts Related to Erosion and Sedimentation

The erosion hazard for soils in the Modesto planning area is generally considered slight. However, activities required for construction, including vegetation removal, excavation, grading, and fill placement have the potential to cause accelerated soil erosion. Standard City requirements are sufficient to avoid such erosion. (Rivera pers. comm.) Preparation of an erosion control program consistent with applicable requirements of the federal Clean Water Act and the City's Grading and Erosion Control Ordinance and "Erosion and Sediment Control Standards for Construction Activities" would ensure that adverse impacts related to accelerated construction site erosion and associated siltation increases are controlled to a less-than-significant level. No mitigation is required.

e. Impacts Related to Topsoil Loss

Earthwork activities associated with the development of the Modesto planning area could result in a loss of topsoil resources during site grading. Potential loss of topsoil resources would be minimized through policies GSM-10 and GSM-11. Conformance to these policies and adherence to good grading and excavation practices would minimize the potential for loss of topsoil due to grading and resulting erosion, reducing related impacts to a less-than-significant level. No mitigation is required.

f. Impacts Related to Expansive Soils

Information about the engineering properties of soils in Modesto is not readily available, but where soils are clay-rich, there may be some potential for expansive soils. Impacts related to the location of new development on expansive soils within the Modesto planning area would be assessed through the City's development review process and mitigated through policy GSM-1, which requires conformance with the most recent UBC standards; and policy GSM-6, which requires the preparation of site-specific geotechnical studies for new subdivisions. With these policies and their outcomes in place, impacts related to expansive soils would be reduced substantially, and any residual impact is considered less than significant.

g. Impacts Related to Mineral Resources

The Modesto planning area has been classified as MRZ-3a for sand and gravel resources. This designation indicates the presence of resources of unknown significance. In the absence of major mineral resources, the UAGP will not result in a significant loss, and no mitigation is required. Impacts would be less than significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of significant cumulative environmental impacts and the determination of whether a project would make a cumulatively considerable contribution to any such impacts. If the project would make such a contribution, mitigation measures intended to reduce the project's contribution must be identified also (Section 15130 of the State CEQA Guidelines). A cumulative impact is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may make a considerable contribution to a cumulative effect nonetheless.

Seismic hazard exposure is the significant cumulative impact in Stanislaus County with regard to geology and mineral resources.

A number of Stanislaus County municipalities have grown substantially in recent decades, representing an increase in the number of persons living and working within the area affected by the county's ambient seismic hazards. Stringent building standards and the regulation of construction offer a substantive means of mitigating seismic hazards, but such risks cannot be avoided entirely, and in regions of rapid urban expansion, a significant cumulative impact related to increased exposure to seismic hazards may exist nonetheless. This pattern is expected to continue into the future. However, under existing City codes, all new structures would be required to meet or exceed UBC standards for Seismic Zone 3. As appropriate, projects also would be required to comply with the recommendations of a site-specific geotechnical report that identifies seismic constraints and develops engineering parameters at the project level. Finally, the City has committed to comply with any future enforcement responsibilities that become effective under the Alquist-Priolo Act and the Seismic Hazards Mapping Act of 1990. With these conditions in place, the increased seismic risk exposure associated with the proposed project has been identified as less than significant in the broad context and is not expected to increase to a cumulatively considerable level.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

No impacts have been identified that cannot be analyzed appropriately at the program level at this time. However, seismic hazards, slope stability, and expansive soils related to specific projects implemented under the updated UAGP will receive further study under the City policies listed above, and additional mitigation may be identified at that time.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

No measures beyond those contained in the proposed UAGP policies are necessary.

1. Measures Which Mitigate Cumulative Impacts

No additional mitigation is required.

2. Alternatives to the Proposed Project.

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

The impacts of the alternatives would be similar to those of the proposed project. The impacts under Alternative 1 most likely would be more severe than those under either the project or Alternative 2 because Alternative 1 does not include the same level of protective policies as the others.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with PRC Section 21081.6.

The City will monitor implementation of its policies through its construction permitting process.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the impacts on landslides and seismic activity as long as the following circumstances have not changed.

1. The lead agency for subsequent projects is the City of Modesto or any responsible agency identified in the Master EIR.

2. The following policies continue to be in force to reduce, avoid, or mitigate impacts: GSM-1 through GSM-14.
3. The project proponent commits to implement the mitigation measures identified in this Master EIR.
4. No additional significant impact related to geologic hazards, soils conditions, or mineral resources is identified within the Modesto planning area, and no new mitigation is required.
5. No new regulatory requirements not already addressed in the updated UAGP and this Master EIR come into effect.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section, *Geology, Soils, and Mineral Resources*, is current as long as the following circumstances have not occurred.

1. The following policies continue to be in force to reduce, avoid, or mitigate impacts: GSM-1 through GSM-14.
2. The project proponent commits to implement the mitigation measures identified in this Master EIR.
3. No additional significant impact related to geologic hazards, soils conditions, or mineral resources is identified within the Modesto planning area, and no new mitigation is required.
4. No new regulatory requirements not already addressed in the updated UAGP and this Master EIR come into effect.

Section 18

Energy

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would result in an increase in energy usage. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level. Mitigation measures identified for traffic, air quality, and climate change in Sections V-1, V-2, and V-21 of this document, respectively, also would help to mitigate energy impacts by reducing the consumption of fossil fuels.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on energy is the Modesto planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The relevant plans used for this purpose are the UAGP and the *Stanislaus County General Plan* (County General Plan). The study area for cumulative impacts on energy usage is defined by the boundaries of Stanislaus County and the state.

3. Existing Physical Conditions in the Study Areas

a. Overview

Energy, in the form of electricity and natural gas, is used within Modesto for lighting, heating, cooling, and various industrial applications. Petroleum (gasoline and diesel) is utilized as a fuel for motor vehicles.

b. Gas and Electricity Supply and Delivery

Electricity is provided by the Modesto and Turlock Irrigation Districts, and natural gas is provided by Pacific Gas & Electric Company (PG&E). Gasoline is provided by various private businesses.

4. Existing Policies Applying to the Study Areas

Below is a comprehensive list of major federal, state, and local (Stanislaus County [County] and City) policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the master environmental impact report (Master EIR) analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Energy policies are designated as E-*X*, where *X* is the discrete number).

a. Federal Regulations

- E-1: The Clean Air Act requires compliance with national clean air standards, which require a reduction in energy usage (see Section V-2 of this Master EIR, *Degradation of Air Quality*, for further discussion).

b. State Regulations

- E-2: The Warren-Alquist State Energy Resources Conservation and Development Act created the California Energy Resources Conservation and Development Commission (California Energy Commission or CEC) in 1974. The CEC prepared a state Energy Conservation Action Plan. The CEC adopted energy conservation standards for new residential building in June 1977 and revised them in 1985. Energy conservation measures for structures fall under the jurisdiction of Title 24, Division 20, Article 2 of the California Code of Regulations (CCR).
- E-3: Title 24 CCR Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) reduces California's energy consumption. Title 24 requires the design of building shells and building components to conserve energy. The standards are required to apply to new construction and reconstruction and are implemented through mandatory conformance with the California Building Code at the time that building permits are issued by the City.
- E-4: The 2006 Appliance Efficiency Regulations (20 CCR, Sections 1601–1608) include standards for both federally regulated appliances and non-federally regulated appliances. These energy standards apply to and are required of all qualifying appliances sold in California. The standards are met during manufacturing by the appliance manufacturer.

c. San Joaquin Valley Unified Air Pollution Control District Programs

- E-5: The air pollution control district has programs to improve air quality that require reducing energy use (see Section V-2 of this Master EIR, *Degradation of Air Quality*, for further discussion).

d. City of Modesto Policies

The UAGP provides the following policies related to energy.

- E-6:** Design neighborhood roadways to allow for safe and convenient pedestrian accessibility. (UAGP Policy III-C.1[g])
- E-7:** New development projects should incorporate the following transit-related design features (Overall Land Use Policy III.C.1.1):
 - (1) Locate medium and high-density development near transit services.
 - (2) Link residential areas to transit stops via continuous sidewalks or pedestrian paths.
 - (3) Where subdivision sound walls exist or are warranted, appropriate designs should be used to facilitate direct pedestrian access to transit stops.
 - (4) A through roadway should connect adjacent developments to permit transit circulation between developments.
 - (5) Commercial and industrial developments shall have easy access to major arterials and transit stops.
- E-8:** Communities or neighborhoods should be compact so that housing, jobs, daily needs and other activities are within easy walking distance of each other. Communities should include a mix of compatible land uses within close proximity. (UAGP Policy III-C.3[a])
- E-9:** As many activities as possible should be located within easy walking distance of transit stops. (UAGP Policy III-C.3[b])
- E-10:** Roadways should be designed to allow for safe and convenient pedestrian accessibility. (UAGP Policy III-C.3[c])
- E-11:** Communities or neighborhoods should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within their boundaries. (UAGP Policy III-C.3[d])
- E-12:** Businesses within a community or neighborhood should provide a range of job types for the community's or neighborhood's residents. (UAGP Policy III-C.3[e])
- E-13:** Each community or neighborhood should have a center focus that combines commercial, civic, cultural, and recreational uses. (UAGP Policy III-C.3[g])
- E-14:** Each community or neighborhood should contain an ample supply of specialized open space in the form of squares, greens, and parks whose frequent use is encouraged through placement and design. Linkages should be provided between recreational facilities and surrounding neighborhoods. (UAGP Policy III-C.3[h])
- E-15:** Streets, pedestrian paths, and bike paths should contribute to a system of fully connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic. Wherever possible, natural terrain, drainage, and vegetation should be preserved with superior examples contained within parks or greenbelts. (UAGP Policy III-C.3[i])
- E-16:** The City will implement minimum lighting and reflective surfaces standards for new development, to minimize the impact of the proposed plan's contribution to introduced or increased light and glare. These standards are reflected in the adopted

Small Lot Development Guidelines and Design Guidelines for Commercial and Industrial Development. (UAGP Policy III-C.3[j])

- E-17:** Transportation Control Measures (TCMs) should be implemented where feasible or mandated by other agencies, to reduce vehicle miles traveled, vehicle idling, or traffic congestion. Alternatives to the drive-alone auto mode, such as mass transit, ride sharing, non-motorized transportation, and telecommuting, should be encouraged. In addition, the City shall encourage innovative means to reduce traffic congestion and enhance air quality, through:
- teleconferencing centers
 - fiber optic communication networks
 - internet commerce and education
 - alternative fuels and vehicles
 - traffic flow improvements, including
 - implementation of Intelligent Transportation Systems (ITS)
 - coordination of traffic signals
 - reducing congestion at major intersections
 - alternative traffic controls such as roundabouts
 - increased transit service, including
 - regional express bus service
 - transit access to airports and railroad stations
 - expansion of public transportation
 - bus pullouts and transit shelters
 - bicycle racks on buses
 - trip reduction programs, including
 - transit oriented development
 - sustainable development
 - preferential parking and financial incentives for carpools and vanpools
 - encouragement of pedestrian and bicycle travel including development of the non-motorized transportation system as outlined in the December 2006 Non-Motorized Transportation Plan and development of pedestrian and bicycle overpasses where feasible and appropriate
 - development of safe routes to school and other measures as identified in the latest Modesto City Council resolution regarding Reasonably Available Control Measures. (UAGP Policy III-B.6[b])
- E-18:** New roadways and roadway connections shall be designed to provide a grid street system to improve connectivity; accessibility of all modes; increase route choice; better accommodate public transit services; and reduce trip length, traffic congestion, and pollution. (UAGP Policy V.B.6[s])
- E-19:** The City transit system shall strive to provide service on a one-half-mile grid where feasible to make the service as accessible as possible. Newly developing areas should provide a street pattern capable of accommodating transit service on a one-

- half-mile grid. Sidewalks to transit facilities shall be provided in the development of new roadway systems to minimize walking distance. (UAGP Policy V.I.2[e])
- E-20:** The City of Modesto shall implement measures to reduce emissions associated with energy use by residences and businesses. Potential measures to be implemented may include those measures listed in Table 2-4 of the Final Master Environmental Impact Report. (UAGP Policy VII-H.2[c])
- E-21:** The City of Modesto shall require shade trees, where feasible and appropriate, in landscape plans for all new development proposals. Mature trees have lower water needs. The City shall develop shade-tree specifications for different land uses (residential, commercial, parking lots, etc.) including appropriate types of trees (size, deciduous or evergreen, absence or lower branches, etc.), locations (e.g., distance from structures), density (i.e., within a subdivision or parking lot), and orientation (trees on the west side of a building generally provide the most benefit) for use in landscape plans. (UAGP Policy VII-I.1[a])
- E-22:** The City shall require the planting of large-canopy species in new development areas in such a way that they grow to full size without damaging streets and sidewalks (including but not limited to deep watering until roots are well established, proper fertilizers, root barriers, structured soils). (UAGP Policy VII-I.1[b])
- E-23:** Removal of street trees shall be discouraged unless they are badly diseased and have become a threat to public safety. If a tree must be removed, it should be replaced no later than the end of the next planting season with a large-canopy species. (UAGP Policy VII-I.1[c])
- E-24:** The goal of the street tree maintenance program is to maintain trees in the best possible health by ensuring that newly planted trees are cared for in such a way as to prevent or minimize sidewalk and street damage (including but not limited to deep watering until roots are well established, proper fertilizers, root barriers, and structured soils), pruning to remove mistletoe as often as necessary, pruning to prevent the tree from leaning, and using measures to control disease. (UAGP Policy VII-I.1[d])
- E-25:** The City of Modesto shall encourage the Modesto and Turlock Irrigation Districts to establish and promote a program whereby existing residential and commercial building owners are provided incentives to increase the number of shade trees in developed parts of the City. The City shall also provide information on appropriate types of trees and their locations to maximize the energy savings from the program. (UAGP Policy VII-I.1[e])
- E-26:** The City of Modesto shall coordinate with the Modesto and Turlock Irrigation Districts (for electricity) and Pacific Gas & Electric Company (for natural gas) on all new, large-scale, development proposals in the City. (UAGP Policy VII-I.1[f])
- E-27:** The City of Modesto shall encourage the use of solar energy systems for residential, agricultural, parks, public buildings, and business purposes as provided in Government Code Section 65892.13. (UAGP Policy VII-I.1[g])
- E-28:** Lots in new subdivisions should be oriented in such a way to maximize solar energy. (UAGP Policy VII-I.1[h])
- E-29:** The City of Modesto shall approve applications for solar energy systems in accordance with State Assembly Bill 2473 (2004). (UAGP Policy VII-I.1[i])
- E-30:** To reduce heat gain from pavement, the City should consider reducing street rights-of-way and pavement widths to pre-World War II widths (typically 22 to 34 feet curb-to-curb for local streets, 30 to 35 feet curb-to-curb for collector streets) and consider working with StanCOG to shift transportation money away from

automobile transportation and toward non-automobile transportation; to realign CMAQ (Congestion Mitigation Air Quality Improvement Program) dollars and other similar flexible funds to non-automobile projects and clean-fuel vehicle projects; to promote increases in funding for transit, bicycle, and pedestrian projects; to promote the establishment of a regional bicycle coordinator; and to require accountability for local expenditures on bicycle and pedestrian facilities. The City shall reinstate the use of parkway strips, where feasible, which allow shading of streets by street trees. (UAGP Policy VII-I.1[j])

- E-31:** The City should consider instituting a development pattern that facilitates non-automobile transportation. Features of such a pattern may include redirecting growth into existing city limits in specified areas, reducing road widths, increasing sidewalk widths, and adding Class II bicycle facilities to City streets. (UAGP Policy VII-I.1[k])
- E-32:** The City should consider renegotiating employee union contracts to eliminate parking subsidies for public employees, encourage carpools through preferential parking and a graduated parking fee, institute parking payouts, and institute on-street metered parking that is consistent with current philosophies and technologies. (UAGP Policy VII-I.1[l])
- E-33:** The City shall consider purchasing clean-fuel/alternative-fuel fleet vehicles. (UAGP Policy VII-I.1[m])
- E-34:** All commercial development projects should include bicycle racks and changing rooms to facilitate trips by bicycle and on foot by both employees and customers. (UAGP Policy VII-I.1[n])
- E-35:** The City shall attempt to facilitate development of “brownfields,” which is property on which development is complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. (UAGP Policy VII-I.1[o])
- E-36:** The City of Modesto shall work with the local energy providers and developers on voluntary incentive based programs to encourage the use of energy efficient designs and equipment. (UAGP Policy VII-I.1[p])
- E-37:** The City of Modesto shall work with the local building industry, utilities, and the SJVAPCD to promote enhanced energy conservation standards for new construction. (UAGP Policy VII-I.1[q])
- E-38:** The City of Modesto shall encourage new residential, commercial, and industrial development to reduce air quality impacts from area sources and from energy consumption. (UAGP Policy VII-I.1[r])
- E-39:** The City shall consider requiring new public buildings to achieve at least the minimum Leadership in Energy and Environmental Design (LEED™) “Certified” rating. LEED™ certification must be applied for through the United States Green Building Council (www.usgbc.org), which administers the program and reviews and evaluates working drawings. Information about required and optional design elements can be found at the U.S. Green Building Council’s website. (UAGP Policy VII-I.1[s])
- E-40:** The City shall work with applicants and developers to encourage green building methods and practices and achieve LEED™ standards for all new development. The City shall develop a program to promote green building methods. (UAGP Policy VII-I.1[t])
- E-41:** New development shall comply with Green Building Standards adopted by the California Building Standards Commission incorporated in the building codes in effect at the time of building permit application. The City shall consider adopting

additional measures that achieve a greater reduction in energy and water use reduction than required by state law, which may include, but not be limited to: cool roofs (as defined by the California Energy Commission's Building Energy Efficiency Standard (Title 24) and the Cool Roof Rating Council), high efficiency insulation, high efficiency plumbing fixtures, tankless water heaters, high efficiency space cooling and heating systems, and high efficiency lighting. (UAGP Policy VII-I.1[u])

E-42: The City shall encourage compliance with the new California Green Building Code Guidelines, which are expected to be adopted in 2009. (UAGP Policy VII-I.1[v])

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area. The policy reference numbers are listed, and the full text of these policies is found in Section A-4, *Existing Policies Applying to the Study Areas*, above.

a. City of Modesto Policies

The UAGP provides the following policies related to energy: E-6 through E-42.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects of projects on energy, using Appendix F of the State CEQA Guidelines.

According to the guidelines identified there, the project would have a significant impact if it would result in wasteful, inefficient, and unnecessary consumption of energy during the project construction, operation, maintenance or removal that cannot be mitigated feasibly.

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are available.

3. Thresholds of Significance Approved by the City of Modesto

Impacts would be significant if the project uses energy in a wasteful manner.

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The Baseline Developed Area and Redevelopment Area are already developed. New development within the Redevelopment Area would comply with 24 CCR standards as well as UAGP policies. Because energy mitigation focuses on new development, and the level of new development in the Baseline Developed Area and Redevelopment Area would be minimal, this impact is considered less than significant.

b. Planned Urbanizing Area

The UAGP contains various land use designations that, taken individually and collectively, create a land use pattern that is distinctly beneficial to a reduction in energy usage when compared with traditional development patterns. These can be found in UAGP Sections II-B., Community Growth Policies; III-B, Generalized Land Use Designations; and III-D. Comprehensive Planning Districts. Village Residential (VR), Village Residential with Business Park (VB), and Business Park (BP) land uses in the Planned Urbanizing Area all encourage pedestrian-oriented development. Better accessibility for pedestrians and bicyclists would result in fewer vehicle miles traveled from residences to shopping, schools, and places of work than otherwise would be generated in a conventional development. As noted in the CEC's *Energy Aware Planning Guide* (California Energy Commission 1993), these planning strategies can result in significant energy efficiencies.

As of 2005, electricity use per capita per year in California was 7,032 kilowatt-hours (kwh) (California Energy Commission 2005a), and natural-gas consumption per capita per year was 422 therms (California Energy Commission 2005b). Given the January 1, 2007, Modesto population estimate of 209,174 persons (California Department of Finance 2007f), current annual electricity use in Modesto is approximately 1,470 gigawatt-hours (gwh) (1,000,000 kwh = 1 gwh), and annual natural-gas use is approximately 88.27 million therms. Assuming the same rate of use and a projected population of up to 357,000 (Galvez 2006) in 2025, total annual energy use would increase to approximately 2,510 gwh and 150.65 million therms, or an increase of approximately 1.7 times over existing levels.

Continued development in the Planned Urbanizing Area is projected to use an estimated 1,400 million cubic feet per month of natural gas, 1,300 million kwh of electricity per year, and 650,000 gallons of gasoline per day. The CEC has indicated that natural-gas resources in North America can meet the nation's demand for at least the next 50 years at current consumption levels (California Energy Commission 2000) but that California needs to develop additional supplies of liquefied natural gas to meet its growing demand (California Energy Commission 2003). According to the California Public Utilities Commission (CPUC), California's natural-gas transportation and storage system is currently adequate to provide natural gas to its customers (California Public Utilities Commission 2001).

As noted in *Long Term Crude Oil Supply and Prices*, prepared for the CEC, crude oil supplies currently are sufficient to serve continued development throughout the state. Nonetheless, California's demand for petroleum products has increased during the last decade and will continue to grow, reflecting population increases and the increased demand for

transportation fuels. Furthermore, the CEC indicates that world oil resources are finite and that world production is likely to peak in this century because of increasing global demand (ICF Consulting 2005). Such a change in production could affect California communities.

Energy use could be reduced by implementing additional recommendations made in the CEC's 1993 publication *Energy Aware Planning Guide*: The amount of gasoline used for commuting to and from work could be reduced by up to 14% with mixed-use residential and office development (assuming 100 housing units and a 100,000-square-foot office space). Placing shopping areas within 0.5 mile of residences and work places translates to up to 2% in gasoline savings. Medium- and high-density uses would reduce gas usage by 1%–3%, and facilitating the use of transit further reduces gasoline use. Also, the cooling effects of shade trees have been documented as reducing summer temperatures by about 10 degrees; this cooling effect in turn reduces air-conditioning use in the summer. Well-planned bicycle and pedestrian facilities, traffic signal coordination and timing, and grid circulation systems—rather than conventional suburban cul-de-sacs—can reduce vehicle miles traveled by 50%–60%, in turn reducing gas consumption. (California Energy Commission 1993.)

Policies E-6 through E-42, as listed above, would promote these energy-saving strategies and would help to reduce energy-related impacts resulting from continued development of the Modesto planning area. Title 24 CCR also would reduce energy use and infrastructure impacts by ensuring that continued development in the UAGP would not exceed local, state, and federal energy standards for new construction. Additionally, the City, in partnership with the Modesto Irrigation District, is in a better position to manage its own energy supply portfolio and ensure that supplies are adequate for its users.

However, continued development within the Planned Urbanizing Area would have an impact on available energy supplies. Because energy consumption likely would increase substantially by 2025 as a result of the increase in population of 1.7 times that of the current population, and because the measures noted in Policies E-6 through E-42 above and proposed below cannot be quantified, this impact remains significant.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, of whether the project would make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may make a considerable contribution to a cumulative effect nonetheless.

A cumulative impact analysis first identifies whether a cumulatively significant impact exists in the given resource area. If one does, the analysis determines whether the project would make a considerable contribution to that impact. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines.)

Increased urban development within California has a cumulative impact on available energy supplies. There is currently no information on future energy estimates for the 2025 scenario, but

the CEC estimates that energy demand in 2016 would be approximately 323,372 gwh in the worst-case scenario, with an average annual growth rate of about 1.28% between 1990 and 2016 (California Energy Commission 2005c). However, the energy crisis of 2001 resulting from the state's failed attempt at deregulation was found, in part, to be a function of market manipulation and alleged predatory pricing schemes rather than a long-term shortage of energy.

In its 2005 *Integrated Energy Policy Report*, the CEC states:

Despite improvements in power plant licensing, enormously successful energy efficiency programs, and continued technological advances, development of new energy supplies is not keeping pace with the state's increasing demand. Construction of new power plants has lagged and the number of new plant permit applications has decreased. In addition, the development of new renewable resources has been slower than anticipated, due in part to the state's complex and cumbersome Renewable Portfolio Standard process. In the transportation sector, California's refineries cannot keep up with the mounting need for petroleum fuels and consequently depend upon increasing levels of imports to meet the state's needs. California also imports 87 percent of its natural gas supplies, which are increasingly threatened by declining production in most U.S. supply basins and growing demand in neighboring states.

California's energy infrastructure may be unable to meet the state's energy delivery needs in the near future. The most critical infrastructure issue is the state's electricity transmission system, which has become progressively stressed in recent years. The systematic under-investment in transmission infrastructure is reducing system reliability and increasing operational costs. Last year, transmission congestion and related reliability services cost California consumers over \$1 billion. The state also experienced price spikes and several local outages over the past summer. California's petroleum import and refinery infrastructure also faces challenges including the inherent conflict between the need to expand import, refining, and storage facilities to meet transportation fuel demands and the environmental and social concerns of local communities affected by these needed expansions. In the natural gas sector, California has made infrastructure improvements that will increase the reliability and operational flexibility of the natural gas system, but must still address the need for additional pipeline capacity to meet peak demand. [California Energy Commission 2005d.]

The project will have a cumulatively considerable contribution to the use of energy.

6. Impacts for Which There Is Insufficient Information to Support a Full Analysis

There are no impacts in this area for which there is insufficient information for a full analysis.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The adopted and proposed policies of the UAGP, described as E-6 through E-42, would reduce direct impacts to a less-than-significant level in the Baseline Developed Area and Redevelopment Area, by promoting pedestrian-oriented development; the use of shade trees; reduced residential

and business emissions; voluntary incentive-based programs for energy providers and developers; enhanced energy conservation standards for new construction; reduced air quality impacts from area sources and from energy consumption; the use of solar energy systems for residential, agricultural, park, public building, and business purposes; the use of passive solar design; the use of small wind energy systems; grid circulation systems in new development; traffic signal coordination; and easier access to transit facilities.

For the Planned Urbanizing Area, the proposed UAGP policies described in Section V-21 of this Master EIR, *Climate Change*, would contribute to the reduction of impacts related to inefficient energy use. However, because energy use is anticipated to increase in substantial excess of the results of energy conservation and UAGP policies, this impact remains significant.

2. Measures Which Mitigate Cumulative Impacts

The adopted and proposed policies of the UAGP and 24 CCR, which require LEED certification of all new development projects, would reduce the project's contribution to cumulative impacts through a program of energy conservation measures. However, the project's contribution would remain cumulatively considerable because the increase in Modesto's population of 1.7 times its current population (at the upper range of the projections) by 2025 would continue to increase energy consumption despite conservation efforts (Galvez 2006).

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Although the project would result in significant impacts on energy, no alternative designs that would lessen impacts are available.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on general plan implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the impacts on energy as long as the following circumstances have not changed.

1. The lead agency for subsequent projects is the City or any responsible agency identified in the Master EIR.
2. The policies described in Section A-4 above (E-1 through E-42) continue to be in force to reduce, avoid, or mitigate impacts.
3. No additional significant impact on energy is identified within the planning area.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area would be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond the May 2008 (estimated date of certification of UAGP/Master EIR update) boundaries.
3. No new energy-related information (as defined in State CEQA Guidelines Section 15162[a][3]) that would require major revisions in the Master EIR, by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required, becomes available.

Section 19

Effects on Visual Resources

This section describes how development associated with the *City of Modesto Urban Area General Plan* (UAGP) would affect visual resources. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impacts on visual resources is the Modesto planning area.

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the *Stanislaus County General Plan* (County General Plan) and the UAGP. The study area for cumulative impacts on visual resources includes Stanislaus and San Joaquin Counties.

3. Existing Physical Conditions in the Study Areas

a. Overview

The region surrounding Modesto is visually characterized by the many agriculturally and industrially based elements that are seen along the State Route (SR) 99 and Southern Pacific Railroad (SPRR) routes that run northwest to southeast. The landform in the planning area is naturally quite flat, but parts of it have been leveled for agricultural production also. Areas of topographic relief can be found on the valley floor near major waterways in the form of bluffs, terraced floodplains, and remnant channel beds. The floodplains of the Tuolumne and Stanislaus Rivers have such features and are natural greenbelts within the Modesto urban area.

Regionally, the planning area is bounded by the Sierra Nevada to the east and the Coast Ranges to the west. The flatness and openness of the terrain in the planning area allows for expansive views of these mountain ranges in the distance when atmospheric haze is at a

minimum. However, mature orchards and vineyards somewhat limit these views to the foreground in rural areas adjacent to urban areas.

b. Description of Visual Resources within the Modesto Planning Area

The Tuolumne River runs along the southern edge of Modesto; the Stanislaus River runs roughly parallel to the northern boundary of the Modesto urban area. Dry Creek, a tributary to the Tuolumne River, runs into the Tuolumne River from the northeast, in the southeast of Modesto.

Agricultural land and associated infrastructure give the city a scenic character that is rural in nature. Orchards; row crops; vineyards; cleared fields; hay bales; farm structures; farming and ranching equipment, such as tractors; and farmhouses are some of the features that lend to the rural agricultural nature of the area. Islands of urban development bordering the agricultural areas provide contrast to this rural character. Often, agricultural and urban areas have abrupt boundaries, lacking transition from one to the other and beginning where each other ends. The planning area's visual quality is low to moderate in vividness, intactness, and unity because of the general lack of visual continuity and coherence.

Like many Central Valley cities along SR 99 and the SPRR route that have a long history of agricultural and industrial activities, Modesto has an antiquated-style main street at the city center, surrounded by old, established neighborhoods and mature trees and landscaping. Agriculture- and industry-based buildings such as silos, warehouses, and factory buildings remain visually prominent and contribute to the overall visual quality of the region. Recent development, including big-box and chain commercial shopping areas that are common to new development throughout the state, is common on the outskirts of Modesto.

There are no designated scenic roadways in the planning area.

4. Existing Policies Applying to the Study Areas

Below is a comprehensive list of major federal, state, and local (Stanislaus County [County] and City of Modesto [City]) policies or summaries of policies in effect that are related to visual resources and may apply to the study area. This list provides the full range of applicable policies that a project within the study area potentially would need to comply with, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which this master environmental impact report (Master EIR) analyzed this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Visual Resources policies are designated as VS-*X* where *X* is the discrete number).

Although San Joaquin County is included in the cumulative impact scenario, San Joaquin County policies are not identified below because state regulations preclude the City from annexing across county lines.

a. Federal Regulations

No federal regulations related to visual resources are relevant to the proposed UAGP.

b. State Regulations

(1) California Department of Transportation Scenic Highway Program

There are no state-designated scenic highways in Modesto or in the Modesto planning area (California Department of Transportation 2007).

(2) California State Lands Commission Inventory Regarding Lands Possessing Significant Environmental Values

VR-1: The Tuolumne River is state sovereign land under the jurisdiction of the State Lands Commission. Any activities within the ordinary low water mark are subject to the commission's leasing jurisdiction. The State Lands Commission's significant lands inventory (or inventory of unconveyed state school lands and tide and submerged lands possessing significant environmental values) identifies the Tuolumne River as category B, Limited Use, having significant environmental values. Category B is defined as lands "in which one or more closely related dominant, significant environmental values is present. Limited uses that are compatible with, and nonconsumptive of, such values may be permitted." To provide permanent protection of environmentally significant values, a project must be designed to be consistent with the use classifications assigned under the significant lands inventory. If such consistency could not be accomplished through mitigation or alteration of the project, the project would be denied.

c. City of Modesto Policies

The UAGP provides the following policies related to visual resources.

VR-2: Each community or neighborhood should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design. Linkages should be provided between recreational facilities and surrounding neighborhoods. (UAGP Policy III-C.3[h])

VR-3: The City will implement minimum lighting and reflective surfaces standards for new development, to minimize the impact of the proposed plan's contribution to introduced or increased light and glare. These standards are reflected in the adopted [*Guidelines for Small-Lot Single-Family Residential Developments*] and *Design Guidelines for Commercial and Industrial Development*. (UAGP Policy III-C.3[j])

VR-4: The commercial uses adjacent to State Route 99 shall be designed to present an attractive gateway to the City. (UAGP Exhibit III-2.4.b[1])

- VR-5:** The Business Park uses located adjacent to State Route 99 shall be designed to present an attractive gateway to the City. (UAGP Exhibit III-4.4.b[1])
- VR-6:** Create identifiable park entrances. Develop an identifiable and comprehensive program of park signage and graphics. (UAGP Exhibit III-5.7.b[6])
- VR-7:** The Business Park uses adjacent to Highway 132 shall be designed to present an attractive gateway to the City. (UAGP Exhibit III-9.4.b[1])
- VR-8:** Visual corridors of the river will be protected and enhanced. (UAGP Policy VII-B.7[a])
- VR-9:** Visual corridors and access points on the riverfront will be recreated through redevelopment. (UAGP Policy VII-B.7[b])
- VR-10:** The scenic resources of Public Trust lands and resources shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect scenic views associated with Public Trust lands and resources. (UAGP Policy VII-B.7[q])

5. Policies Which Avoid Impacts

The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area as they annex and develop. County policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed. The full text of these policies is found in Section A-4 above, under *Existing Policies Applying to the Study Area*.

a. City of Modesto Policies

The UAGP provides the following policies related to visual resources as described in Section A-4 above, which, when applied to subsequent projects will avoid or reduce impacts: VR-2 to VR-10.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

According to Appendix G of the State CEQA Guidelines, the UAGP update would be considered to result in a significant impact if it would:

- a. have a substantial adverse effect on a scenic vista;
- b. substantially damage scenic resources, including trees, rock outcrops, and historic buildings within a state scenic highway;

- c. substantially degrade the existing visual character or quality of the site and its surroundings; and
- d. create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are available.

3. Thresholds of Significance Adopted by the City of Modesto

The City has adopted the State CEQA Guidelines thresholds as well as the following additional thresholds of significance to analyze the impacts of the UAGP on viewsheds from and of river parks in the planning area, including Dry Creek Park and the Tuolumne River Regional Park (TRRP):

- a. substantially degrade views from riverside areas and parks, and
- b. substantially degrade views of riverside areas from public roadways and nearby properties.

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

There are no designated scenic vistas or state scenic highways in the planning area.

The Baseline Developed Area and Redevelopment Area contain lands that are mostly developed with urban uses and either are not expected to change substantially within the next 30 years or would allow increased density. As a result of the UAGP, there would be little change to the existing visual character and quality of this area, which is already within a developed setting, and its surroundings; therefore, no significant impacts on visual resources would occur as a result of land use changes.

Because the Baseline Developed Area and Redevelopment Area are already developed with urban uses, including existing sources of light and glare, impacts related to substantial new sources of light and glare for this area are considered less than significant.

b. Planned Urbanizing Area

There are no designated scenic vistas in the planning area. The UAGP includes policies that encourage the preservation of views from riverside parks, as well as of riverside areas from public roadways (VR-8 and VR-9, above). Therefore, the UAGP's impact on scenic vistas is considered less than significant.

There are no designated state scenic highways or locally designated scenic routes in the planning area. Therefore, the proposed road system policies and other policies under the UAGP would not affect a designated state scenic highway or other scenic route.

The UAGP would adopt the Growth Strategy Diagram for the Planned Urbanizing Area, as presented in Chapter II. This would allow urban development on currently flat or vacant land or land that is developed with agricultural uses. Such new development would change the visual character of the land; however, the visual quality of the planning area is generally low to moderate (as described above), and it is anticipated that new, planned development would match and blend with the existing development of the area. UAGP Policy III-C.1(i) would ensure the visual compatibility of new development: "Establish and maintain an orderly and compatible land use pattern. Evaluate land use compatibility, noise, traffic, and other environmental hazards when making land use decisions."

Overall, the UAGP incorporates policies that place value on the preservation of visual resources and important vistas and viewsheds. The proposed planning principles encourage the visual enhancement of neighborhoods, planning districts, and parks. The UAGP has specific policies guiding the visual quality of riverside parks under the proposed River Greenway Program, which emphasizes the preservation of views from these parks, which would include the City's two river parks, Dry Creek Park and the TRRP. This impact is less than significant.

Adoption of the Growth Strategy Diagram for the Planned Urbanizing Area, as presented in Chapter II, could lead to new development in areas that are currently vacant or used for agricultural purposes. This could lead to the introduction of light and glare in areas that are not illuminated currently. Additionally, the adoption of proposed UAGP actions and policies that could lead to an expanded street system and enhanced transit system could increase light and glare in the planning area also. The City has adopted *Guidelines for Small-Lot Single-Family Residential Developments* and *Design Guidelines for Commercial & Industrial Development* that include standards for the design of outdoor lighting fixtures. These standards (UAGP policy VR-3) limit the size of fixtures and require that fixtures focus their light to avoid spilling onto nearby properties. This will reduce the potential for light and glare impacts from new development in the Planned Urbanizing Area, however, the impacts will not be reduced to a less than significant level.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of significant cumulative environmental impacts; whether a project will make a cumulatively considerable contribution to any such impacts; and, if it will, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative impact is one that results from past, present, and probable future projects. A project that has a less-than-significant direct impact on the environment may make a considerable contribution to a cumulative impact nonetheless.

A cumulative impact analysis first identifies whether a cumulatively significant impact exists in the given resource area. If one does, the analysis determines whether the project will make a considerable contribution to that impact. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of

a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable (Section 15130[a] of the State CEQA Guidelines).

Adoption of the Growth Strategy Diagram for the Planned Urbanizing Area, as presented in Chapter II, could lead to new development in areas that are currently vacant or used for agricultural purposes. This could lead to the introduction of light and glare in areas that are not currently illuminated. Additionally, the adoption of proposed UAGP actions and policies that could lead to an expanded street system and enhanced transit system also could increase light and glare in the planning area. This is considered a significant cumulative impact. Each new development or transportation project would be required to undergo individual environmental review at the time of proposal, which would address the project's individual contribution to light and glare in the city and propose mitigation to lessen this impact, as necessary. This, in combination with UAGP policy VR-3 above, would reduce this cumulative impact but not to a less-than-significant level.

6. Potential Impacts for Which There Is Insufficient Information to Support a Full Analysis

There is no such impact on visual resources.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

The adopted policies of the UAGP listed in Sections V-G.3 and V-G.4 of the UAGP (UAGP policies VR-2 through VR-10), as well as the City's adopted *Guidelines for Small-Lot Single-Family Residential Developments* and *Design Guidelines for Commercial & Industrial Development* would eliminate direct impacts by incorporating policies that encourage the preservation and enhancement of visual resources in the planning area.

For impacts related to light and glare, UAGP policy VR-3 will limit the size of fixtures and require that fixtures focus their light to avoid spilling onto nearby properties, reducing the impact from new development in the Planned Urbanizing Area, however, the impact will not be reduced to a less than significant level and is therefore considered to be significant and unavoidable.

2. Measures Which Mitigate Cumulative Impacts

Adopted policies of the UAGP, listed in Chapters III and VII of the UAGP, would ensure that important visual resources are preserved and enhanced and that views from riverside parks in Modesto are protected from the potential effects of new development. Additionally, the adopted policies of the County General Plan ensure the protection and preservation of natural and scenic areas throughout Stanislaus County.

UAGP policy VR-3 would reduce the project's contribution to cumulative impacts related to light and glare, but not to a less-than-significant level. The impact would remain significant and unavoidable.

3. Alternatives to the Proposed Project

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

The UAGP would result in significant impacts on visual resources related to new sources of light and glare. Alternative designs that incorporate policies related to dark-sky preservation and the reduction of lighting impacts from new development would lessen impacts.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 211081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the Modesto City Council with an annual report on General Plan implementation. Therefore, no separate mitigation monitoring program is required for the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II of this Master EIR, are within the scope of analysis for the impacts on visual resources as long as the following circumstances have not changed.

1. The lead agency for subsequent projects will be the City or any responsible agency identified in the Master EIR.
2. The following City policies found in Section A-4 above, *Existing Policies Applying to the Study Area*, continue to be in force to reduce, avoid, or mitigate impacts: VR-2 to VR-10.
3. No additional significant impact on visual resources is identified within the Modesto planning area, and no new mitigation measures are required.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT

As authorized by PRC Section 21166, the analysis contained in this section, *Effects on Visual Resources*, is current as long as the following circumstances have not occurred.

1. The Modesto planning area is expanded beyond the March 2008 (estimated as the month of certification for the UAGP/Master EIR update) boundaries.

2. There are no substantial changes with respect to the circumstances under which the UAGP is being undertaken that would require major revisions in the Master EIR by indicating that there would be an additional significant impact on the environment and that new or additional mitigation measures or alternatives may be required.

Section 20

Land Use and Planning

This section of the master environmental impact report (Master EIR) describes existing and proposed land uses in and around the planning area and the potential impacts of the proposed project on these land uses. Information about the project area and the regional location was obtained from relevant plans, including the *City of Modesto Urban Area General Plan* (UAGP). Growth-inducing impacts are discussed in Chapter VI. If significant impacts are found, mitigation measures are provided to reduce these impacts to a less-than-significant level.

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The study area for direct impact on land use and planning is the Modesto planning area.

2. Study Area for Cumulative Impacts

The cumulative analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. Pertinent plans and projections to be used for this purpose are the *Stanislaus County General Plan* (County General Plan) and the City's UAGP. The study area for cumulative impacts on land use is the limits of Stanislaus County.

3. Existing Physical Conditions in the Study Area

a. Overview

The City of Modesto is located in Stanislaus County in the central San Joaquin Valley, approximately 95 miles east of San Francisco and 80 miles south of Sacramento. The Tuolumne River runs along the southern edge of the city, and the Stanislaus River runs roughly parallel to the northern boundary of the City's urban area. Modesto is intersected by State Route (SR) 99 along the north-south axis and Highway 132 along the east-west axis. In a larger context, the county is bounded by San Joaquin County to the north, Calaveras, Tuolumne, and Mariposa Counties to the east, Merced County to the south, and Santa Clara and Alameda Counties to the west.

b. General Plan Area

Modesto is bordered by the natural greenbelts of the Stanislaus and Tuolumne Rivers. In the long-term future, the San Joaquin River flood plain and anticipated wetlands preserves will separate urban expansions of the SR 99 corridor from those of the I-5 corridor.

(1) Existing Land Use Patterns

The Baseline Developed Area encompasses approximately 21,200 acres, excluding the Redevelopment Area. The Redevelopment Area encompasses approximately 1,970 acres. The Baseline Developed Area and the Redevelopment Area in Modesto contain mostly developed, urbanized land uses. The approximately 19,500-acre Planned Urbanizing Area is predominantly undeveloped or fallow agricultural land, and minimally if at all supported by urban services and infrastructure.

(2) Existing Land Use Designations**(a) Residential (R)**

The Residential land-use designation (R) defines areas where residential land uses would be compatible with other existing and planned land uses throughout the planning area. Residential uses include single-family detached housing and mobile homes. Compatible uses in the residential designation may include schools, parks, and religious or community facilities.

(b) Mixed-Use (MU)

The Mixed-Use land use designation (MU) describes areas of the Modesto urban area that are already developed (as of January 1, 1995) and contain a mixture of all or some of the following uses in close proximity to one another: multi-family residential, commercial, office, and institutional.

(c) Commercial (C)

The Commercial land-use designation (C) is generally located at intersections along major arterial streets and expressways. This designation includes a variety of service and retail uses, including but not limited to offices, downtown commercial districts, and regional retail centers serving the needs of the entire region.

(d) Industrial (I)

The Industrial designation (I) is generally located within major tracts oriented to SR 99 and to the three railroads serving the urban area. This designation includes manufacturing, food processing, trucking, packing, and recycling, as well as those enterprises that may want to combine office and production aspects of their business in the same complex.

(e) Redevelopment Planning District (RPD)

The Redevelopment Planning District (RPD) is a land use designation applied within redevelopment areas of Modesto. This designation includes housing and is defined by an urban forest system and transportation access.

(f) Village Residential (VR)

The Village Residential land-use designation (VR) provides for the development of urban “villages” defined by mixed-use compact, pedestrian- and transit-oriented development.

(g) Regional Commercial (RC)

The Regional Commercial land-use designation (RC) is located in large scale commercial areas for the sale of goods and services that meet the needs of the entire region.

(h) Business Park (BP)

The Business Park land-use designation (BP) is located with adequate access to regional traffic routes and transit corridors. This designation provides for areas of light industrial and employment-intensive uses. Regional Commercial uses are also permitted in Business Parks.

(i) Open Space (OS)

Land uses in the Open Space designation (OS) will include low-impact recreational facilities, public ownership, low-density residential, and agriculture. This designation is to provide for regional recreational open space (active and passive) along the Tuolumne River, Stanislaus River, and Dry Creek. Community and neighborhood parks and other smaller open space areas can be accommodated in any land use designation.

(i) Salida Community Plan (SCP)

The Salida Community Plan designation (SCP) would apply to the Salida area should the Salida Comprehensive Planning District (CPD) be annexed to the City of Modesto at some future time. The City does not propose to change any land use policies or designations from those established by Stanislaus County (County), so the Salida Community Plan, as adopted by Stanislaus County in August 2007, would continue to regulate growth and development for this area, even upon annexation to the City.

Additional land-use category information is located in Chapter III of UAGP.

c. Planning Areas

The approximately 1,970-acre Redevelopment Area is land designated as Redevelopment Planning District. The plans that govern development in this area are the *Amended Redevelopment Plan for the Modesto Redevelopment Project*, adopted in November, 1991, and as subsequently amended, and the *Modesto Redevelopment Master Plan*, adopted by the Redevelopment Agency in October, 2007, and as subsequently amended.

(1) Redevelopment Area

The approximately 1,970 -acre Redevelopment Area covers the land within the boundaries of the Redevelopment Planning District (the "Project Area") as adopted by the Modesto Redevelopment Agency in October 2007

(2) Baseline Developed Area

The Baseline Developed Area is generally defined as the lands that can be served by the City's sanitary sewer system. The area served by the Modesto Municipal Sanitary District Number 1 is 25,953 acres; the area served by the "Will-Serve Agreement" is 888 acres, and the area served by the Ceres Agreement is 914 acres. The Baseline Developed Area, comprising approximately 21,200 acres, excluding the Redevelopment Area, contains lands that are mostly developed with urban uses, which are not expected to change substantially during the time horizon of this plan. Also included within the Baseline Developed Area are vacant lands which have a clearly defined future, such as the Beard Tract industrial area.

(3) Planned Urbanizing Area

Future development within the approximately 19,500-acre Planned Urbanizing Area (PUA) will occur on land which is predominantly flat, vacant and/or developed with agricultural uses, and minimally if at all served with urban services and infrastructure, including roads. Approximately 12,700 acres of the PUA are located within the sphere of influence, excluding the RPD and Baseline Developed Area. The remaining areas of the PUA, approximately 6,800 acres, are located outside the Sphere of Influence. The PUA is expected to absorb substantial urban development in a comprehensively planned manner. For this reason, the land uses projected by the Land Use Diagram in Chapter III will be implemented through CPDs, as defined and explained in Chapter III.

d. Adjacent Areas

The City of Ceres is located directly south of Modesto. Its sphere of influence abuts the Modesto planning area. The City of Riverbank is located directly north of Modesto. Its sphere of influence also abuts the Modesto planning area. Ceres and Riverbank have adopted

their own general plans to guide development within the respective cities. Land use in the unincorporated areas surrounding Modesto, Ceres, and Riverbank is regulated by the County.

(1) Proposed Land Uses

The UAGP does not propose changes to its existing land-use plan, and the Baseline Developed Area is not expected to change substantially. The following changes are proposed to the current land-use designations:

(a) Residential (R)

Clarify that single-family attached housing and multi-family housing are allowable uses with a maximum density to 7.5 dwelling units per net acre (du/net acre).

(b) Mixed-Use (MU)

Clarify that single-family residential development is allowed; clarify that MU can be applied outside the Baseline Developed Area; require that 60% of the gross area within an MU district is to be for residential use.

(c) Commercial (C)

Clarify that this designation also allows business, medical, and professional offices other than large office campuses, neighborhood retail centers, convenience retail, and highway-oriented commerce (restaurants, gas stations, automotive repair and service) uses.

(d) Redevelopment Planning District (RPD)

Clarify that vertical mixed-use development is allowed.

(e) Village Residential (VR)

Clarify that this district is intended to accommodate a variety of residential product types, such as detached houses on small lots and multi-family and senior housing in addition to village-serving non-residential uses. Increase maximum residential density from 5.1 to 6.6 dwelling units per gross acre to recognize the increased density introduced by the 2004 Housing Element and up to 27 du/net acre for multi-family housing.

(f) Regional Commercial (RC)

Clarify that this district is to be located where there are major transportation routes to allow easy access.

Future growth would occur in accordance with existing City zoning designations, and with other City policies in existence as of the base year (2007) of the UAGP.

Because only a small portion of the Baseline Developed Area is considered vacant or available for development, the City will concentrate its future growth in the Redevelopment Planning Area and in the Planned Urbanizing Area.

The Redevelopment Planning Area encompasses the City's downtown core and will allow higher density, mixed-use development in order to create a balanced and vibrant downtown core and active neighborhood centers. The purpose of that Plan is to identify and prioritize land use and economic development goals, and present recommendations for improvements that will contribute to a visually appealing public realm, efficient automobile, bicycle, and pedestrian circulation, and adequate infrastructure to serve the planned redevelopment.

The Planned Urbanizing Area forms the outer perimeter of the UAGP planning area. Future projects in the Planned Urbanizing Area will be guided by focused policies in the CPDs. Figure III-1, Adopted Land Use Diagram of the General Plan, identifies UAGP land-use designations in the urban area.

4. Existing Policies Applying to the Study Area

Below is a comprehensive list and summary of major federal, state, and local (county and city) policies or summaries of policies in effect that apply to the study area. This list provides the full range of applicable policies with which a project within the study area would potentially need to comply, including policies beyond the jurisdiction of the City. This list of laws, regulations, and programs also serves to describe the circumstances under which the Master EIR analyzes this environmental topic.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Land Use and Planning policies are designated as LUP-X, where X is the discrete number).

a. Federal Regulations

There are no applicable federal policies or regulations related to land use and planning.

b. State Policies

The Planning, Zoning, and Development Law (Government Code Section 65100 et seq.) establishes the basic requirements for local general plan content. Each city and county is allowed to apply the requirements in a way "that accommodate[s] local conditions and circumstances." Government Code Section 65302 provides that each general plan must include land use, housing, circulation, conservation, open space, noise, and safety elements. These elements may be adopted "in any format deemed appropriate or convenient by the legislative body, including the combining of elements." (Government Code Section 65301)

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56300 et seq.) establishes the county Local Agency Formation Commission (LAFCo) and empowers it to consider and approve city and special district annexation, dissolution, and formation. The Act requires the LAFCo to apply good planning principles to its decisions, including conservation of agricultural land, compact growth patterns, and efficient provision of government services.

c. Stanislaus County Policies

The County General Plan applies to the unincorporated lands surrounding Modesto, including lands within the City's sphere of influence. Lands within the city limits are not governed by the County General Plan. The County General Plan has the following applicable policies (Stanislaus County 2006).

(1) Land Use Element

- LUP-1:** Land will be designated and zoned for agricultural, residential, commercial, industrial, or historical uses when such designations are consistent with other adopted goals and policies of the general plan. (Policy 1)
- LUP-2:** Land designated Agriculture shall be restricted to uses that are compatible with agricultural practices, including natural resources management, open space, outdoor recreation and enjoyment of scenic beauty. (Policy 2)
- LUP-10:** Expansion of urban boundaries of unincorporated communities should be based on infilling and elimination of existing "islands" and should not permit leapfrog development or create new "islands." (Policy 13)
- LUP-12:** Uses should not be permitted to intrude into or be located adjacent to areas that are identified as existing and/or potential sites for solid waste facilities if such uses would not be compatible. (Policy 15)
- LUP-13:** Agriculture, as the primary industry of the County, shall be promoted and protected. (Policy 16)
- LUP-20:** New development shall pay its fair share of the cost of cumulative impacts on circulation and transit systems. (Policy 23)
- LUP-21:** Development, other than agricultural uses and churches, which requires discretionary approval and is within the sphere of influence of cities or in areas of specific designation created by agreement (e.g., Sperry Avenue and East Las Palmas Corridors), shall not be approved unless first approved by the city within whose sphere of influence it lies or by the city for which areas of specific designation were agreed. Development requests within the spheres of influence or areas of specific designation of any incorporated city shall not be approved unless the development is consistent with agreements with the cities which are in effect at the time of project consideration. Such development must meet the applicable development standards of the affected city as well as any public facilities fee collection agreement in effect at the time of project consideration. (Comment: This policy refers to those development standards that are transferable, such as street improvement standards, landscaping, or setbacks. It does not always apply to standards that require connection to a sanitary sewer system, for example, as that is not always feasible.) (Policy 24)

LUP-22: Whenever an application is to be considered which includes property within the sphere of influence of a city or special district (e.g., sewer, water, community services) or areas of specific designation created by agreement between County and City, the following procedures should be followed:

1. Development, other than agricultural uses and churches, which requires discretionary approval from incorporated cities shall be referred to that city for preliminary approval. The project shall not be approved by the County unless written communication is received from the city memorializing their approval. If approved by the city, the city should specify what conditions are necessary to ensure that development will comply with city development standards. Requested conditions for such things as sewer service in an area where none is available shall not be imposed. Approval from a city does not preclude the County decision-making body from exercising discretion, and it may either approve or deny the project.
2. Agricultural uses and churches which require discretionary approval should be referred to that city for comment. The County Planning Commission and Board of Supervisors shall consider the responses of the cities in the permit process. If the County finds that a project is inconsistent with the city's general plan designation, it shall not be approved. Agricultural use and churches shall not be considered inconsistent if the only inconsistency is with a statement that a development within the urban transition area or sphere of influence shall be discouraged (or similar sweeping statement). The city shall be asked to respond to the following questions:
 - (a) Is the proposed project inconsistent with the land use designation on the city's general plan? If so, please include a copy of the map (or that portion which includes the subject property) and the text describing uses permitted for the general plan designation. All findings of inconsistency must include supporting documentation.
 - (b) If the project is approved, specifically what type of conditions would be necessary to ensure the development will comply with city development standards such as street improvements, setbacks and landscaping? In the case of a proposed project within the sphere of influence of a sanitary sewer district, domestic water district or community services district, the proposal shall be forwarded to the district board for comment regarding the ability of the district to provide services. If the district serves an unincorporated town with a Municipal Advisory Council (MAC), the proposal shall also be referred to the MAC for comment. (Spheres of Influence Policy 1)

Other land use regulations in Stanislaus County include the following:

LUP-23: The Stanislaus County General Plan contains an Urban Transition designation to ensure that land remains in agricultural usage until urban development consistent with a city's (or unincorporated community's) general plan designation is approved. The Urban Transition designation is appropriate for undeveloped land located within the LAFCo-established sphere of influence of a city or town.

LUP-25: The Stanislaus County Airport Land Use Commission Plan discourages locating new uses that concentrate large numbers of people or that involve the handling of hazardous materials under airport approaches within its planning area. It advises against development that would interfere with communications, visibility, and exceed height limitations. It encourages jurisdictions to make land use changes from incompatible uses to compatible uses, and to relocate existing non-conforming uses.

d. City of Modesto Regulations**(1) Baseline Developed Area**

The UAGP provides the following proposed policies related to land use and planning (City of Modesto 2007c).

1) Land Use Policies—Overall Land-Use Policies

LUP-26: The Zoning Code (Title X of the Modesto Municipal Code) and the Zoning Map shall be used as the primary vehicle to guide future development in the Baseline Developed Area. A secondary vehicle is policies in existence in the Base Year (2007) of this General Plan. (Policy III-C.1[a])

LUP-27: Section 65803 of the Government Code indicates that in charter cities such as Modesto, zoning need not be consistent with the General Plan. Notwithstanding, development plans within the Baseline Developed Area may be found consistent with the General Plan if they are consistent with the Zoning Code and Map and the various policies of the General Plan. Zone changes may be approved anywhere in the General Plan Area, if the following findings are made:

- 1) The requested zone change is required by public convenience or necessity.
- 2) The requested change will result in an orderly planning use of land resources.
- 3) The requested zone change is in accordance with the community's objectives as set forth in: the "Neighborhood Plan Prototype" policies presented in Section C-2, below (for property within the Baseline Developed Area); or a Comprehensive Plan prepared in accordance with this Chapter (for property within the Planned Urbanizing Area); or the Redevelopment Plan (for property within the Redevelopment Area).
- 4) Adequate environmental mitigation has been provided through the implementation of appropriate mitigation measures established by the Master Environmental Impact Report and any supplements to the MEIR. Traffic and public facility issues are particularly relevant in this analysis. (Policy III-C.1[b])

LUP-28: Additional vehicles to guide future development, in both the Baseline Developed Area and the Planned Urbanizing Area, include: Neotraditional Planning Policies (C-3, below) and the Neighborhood Plan Prototype Policies (C-2, below). (Policy III-C.1[c])

LUP-29: Specific Plans, adopted pursuant to Section 65450 et seq. of the California Government Code, may be used to provide primary policy guidance to future development within their respective geographic areas. Accordingly, each specific plan shall include a text and a diagram or diagrams which specify all of the following in detail: (1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan. (2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan. (3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable. (4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the preceding items (1), (2), and (3).

Specific Plans may incorporate any of the Land Use Designations presented on the Land Use Diagram, and they may be used within any Growth Strategy Designation: Redevelopment Area, Baseline Developed Area, or Planned Urbanizing Area. Where the Neighborhood Plan Prototype is applied to a Comprehensive Planning District, it shall be implemented by a Specific Plan. Any such Specific Plan shall cover a minimum of approximately 480 acres of area or be based on a logical unit of infrastructure, such as an elementary school service area or park planning area. (Policy III-C.1[d])

- LUP-30:** Annexation of Noncontiguous Land (not shown on Land Use Diagram). Section 65300 of the California Government Code allows the General Plan to address policies to any land “outside its boundaries which in the [City’s] judgment bears relation to its planning.”

In addition, Section 56742 a-b of the Government Code allows the City of Modesto upon approval of the Stanislaus Local Agency Formation Commission, to annex noncontiguous territory not exceeding 300 acres in area, which is located in the same county as that in which the city is situated, and which is owned by the city and is being used for municipal purposes at the time commission proceedings are initiated. The territory that is used by a city for reclamation, disposal, and storage of treated wastewater may be annexed to the city pursuant to this section without limitation as to the size of the territory being annexed.

In the past, the city has relied upon Section 56742 a-b of the Government Code to annex certain properties noncontiguous to the city, for the purpose of establishing and expanding wastewater treatment facilities on Jennings Road, adjacent to the San Joaquin River. Annexation of all of the Wastewater Treatment Plant land is underway at the Jennings Road facilities. Because this site is approximately 7 miles from the city limits, it is not depicted graphically on the Land Use Diagram. Nevertheless, as long as Section 56742 a-b remains in effect, the city will continue to expand the treatment facilities, and annex the land to the city as appropriate and as needs dictate. The Sphere of Influence should reflect the ability of the city to take this action.

The City will designate a riparian habitat preserve for the Jennings Road and Sutter Avenue wastewater facilities, where they adjoin the San Joaquin and Tuolumne Rivers respectively, to foster the best conjunctive management of wastewater facilities. The Jennings Road and Sutter Avenue wastewater sites have been incorporated into the Tuolumne River Regional Park (TRRP) Master Plan and the designation of riparian habitat preserves at these locations is consistent with provisions in the TRRP Master Plan. The designation of riparian preserves at these locations will help preserve open space and protect habitat for threatened and endangered species, including valley elderberry longhorn beetle and Swainson’s hawk. (Policy III-C.1[e])

- LUP-31:** Establish and maintain an orderly and compatible land use pattern. Evaluate land use compatibility, noise, traffic, and other environmental hazards when making land use decisions. (Policy III-C.1[h])
- LUP-32:** A Specific Plan, within the Comprehensive Planning District, shall follow the policies and procedures established in the City of Modesto’s adopted Specific Plan Procedures and Preparation Guide. (Policy III-C.1[i])
- LUP-33:** The New development projects should incorporate the following transit-related design features:

- (1) Locate medium and high-density development near transit services.

- (2) Link residential areas to transit stops via continuous sidewalks or pedestrian paths.
- (3) Where subdivision sound walls exist or are warranted, appropriate designs should be used to facilitate direct pedestrian access to transit stops.
- (4) A through roadway should connect adjacent developments to permit transit circulation between developments.
- (5) Commercial and industrial developments should have easy access to major arterials and transit stops. (Policy III-C.1[j])

2) Land Use Policies—Neighborhood Plan Prototype Policies

- LUP-34:** Neighborhoods should contain a variety of housing types, as allowed by the R-1, R-2, R-3, and P-D Zones of the Modesto Zoning Code. The location and distribution of the different housing types within a neighborhood are presented in Figure III-2 (UAGP), “Neighborhood Plan Prototype”. (Policy III-C.2[a])
- LUP-35:** Neighborhoods should contain sufficient elementary schools necessary to serve the residential development within the neighborhood. Schools should be located on Collector streets within the neighborhood, preferably at or near the intersection of two Collector streets. (Policy III-C.2[b])
- LUP-36:** Neighborhood parks sufficient to serve the residential development within the neighborhood (see Section V-G for parks standards) should be located adjacent to school sites. (Policy III-C.2[c])
- LUP-37:** A 7–9 acre neighborhood shopping center, containing 60,000 to 100,000 square feet of gross leasable space, should be located in each neighborhood. The shopping center should be located at the intersection of two Arterial streets, as shown in Figure III-2 (UAGP). (Policy III-C.2[d])
- LUP-38:** A network of Collector streets should be developed within each neighborhood, as shown in Figure III-2 (UAGP). These Collector streets should utilize the following principles:
- (1) Collector streets should provide direct linkages from the residences within a neighborhood to neighborhood facilities within the same neighborhood, such as schools, parks, shopping areas, churches, etc., and a connection to peripheral Arterial streets but not to peripheral expressways or freeways.
 - (2) Collector streets should be designed to intersect Arterial streets at 1/4 mile intervals.
 - (3) Collector streets should cross Arterial streets with four-way intersections to facilitate Arterial street traffic signalization but should not be continuous alignments through two or more neighborhoods, as their function is not to serve as through traffic arteries. Several “through” Collector streets are acknowledged based on their pre-existence as county service roads to agricultural areas. (Policy III-C.2[e])
- LUP-39:** Minor adjustments to the Neighborhood Plan Prototype can be made to accommodate existing development in an area. (Policy III-C.2[f])
- LUP-40:** If a neighborhood is bordered by an expressway on one or more sides, then the following modifications should be made in implementing the Neighborhood Plan Prototype:
- (1) Zoning adjacent to the expressway should be R-1, rather than R-2 or R-3.

- (2) The neighborhood shopping center should not be located adjacent to the expressway.
- (3) If the expressway is a Class A expressway, there shall be no Collector streets intersecting with the expressway.
- (4) If the expressway is a Class B expressway, there may be no Collector street intersecting with the expressway, or just one Collector street intersection on the half mile, with right turn in, right turn out only (no median break). (Policy III-C.2[g])

3) Land Use Element—Neotraditional Planning Policies

- LUP-41:** Communities or neighborhoods should be compact so that housing, jobs, daily needs, and other activities are within easy walking distance of each other. Communities should include a mix of compatible land uses within close proximity. (Policy III-C.3[a])
- LUP-42:** As many activities as possible should be located within easy walking distance of transit stops. (Policy III-C.3[b])
- LUP-43:** Roadways should be designed to allow for safe and convenient pedestrian accessibility. (Policy III-C.3[c])
- LUP-44:** Communities or neighborhoods should contain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live within its boundaries. (Policy III-C.3[d])
- LUP-45:** The location and character of the community or neighborhood should be consistent with a larger transit network. (Policy III-C.3[f])
- LUP-46:** Each community or neighborhood should have a center focus that combines commercial, civic, cultural, and recreational uses. (Policy III-C.3[g])
- LUP-47:** Each community or neighborhood should contain an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design. Linkages should be provided between recreational facilities and surrounding neighborhoods. (Policy III-C.3[h])
- LUP-48:** Streets, pedestrian paths and bike paths should contribute to a system of fully connected and interesting routes to all destinations. Their design should encourage pedestrian and bicycle use by being small and spatially defined by buildings, trees and lighting; and by discouraging high speed traffic. Wherever possible, natural terrain, drainage, and vegetation should be preserved with superior examples contained within parks or greenbelts. (Policy III-C.3[i])

(2) Planned Urbanizing Area

The following Principal CPD Policies apply to all CPDs, regardless of whether they are located in the Baseline Developed Area or the Planned Urbanizing Area.

4) Land Use Element—Principal Comprehensive Planning District Policies

- LUP-49:** Since each Comprehensive Planning District contains a number of properties, unified direction from affected property owners should be encouraged, particularly for privately-initiated applications. In the case of disparate or unknown development

intentions, the City may proactively seek consensus from affected property owners. (Policy III-D.1[a])

LUP-50: The Specific Plans within each Comprehensive Planning District should establish clear and comprehensive implementation tools and shall follow the policies and procedures as outlined in the City of Modesto's adopted Specific Plan Procedures and Preparation Guide which identify all subsequent land use approvals required to be consistent with the Comprehensive Plan. (Policy III-D.1[b])

LUP-51: Because of their size, shape, and proximity to existing areas developed under the Neighborhood Plan Prototype policy of the 1974 General Plan, the following Comprehensive Planning Districts do not need to comply with the above Principal Comprehensive Planning District Policies (D-1(a) and D-1(b)):

Pelandale/Snyder CPD

Coffee/Claratina CPD

North Beyer CPD

In the above instances, the "Neighborhood Plan Prototype" Policies and the City's Zoning and Subdivision Ordinances provide sufficient guidance for future development of these CPD's. Notwithstanding, all Comprehensive Planning Districts need to comply with the following Principal Policies in addition to the above Principal Comprehensive Planning District Policies (D-1(a) and D-1(b)). (Policy III-D.1[c])

LUP-52: The City may adopt guidelines for development projects as directed by City Council. These guidelines shall serve as minimum expectations. (Policy III-D.1[d])

LUP-53: Each Specific Plan shall be accompanied by a long-range financing strategy that provides reasonable estimates of the costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public facility funding, including schools, for any development project that serves to implement the subject Specific Plan. If new public facilities are required that will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms. (Policy III-D.1[e])

LUP-54: Specific Plans, as defined in Chapter VIII, shall be used for the implementation of the Comprehensive Planning Districts presented in Figure III-1. Specific Plans, as defined in Section 65450 et seq. of the California Government Code, are particularly suited for this purpose. (Policy III-D.1[f])

LUP-55: More than one Specific Plan may be processed within a given CPD), as long as the remaining area within the CPD can still comply with the General Plan policies presented in this chapter. Conversely, a Specific Plan can be used to implement more than one Comprehensive Planning District, when those districts are adjoining. A CPD may consist of more than one Specific Plan provided that the Specific Plans are consistent, compatible, and complement one another; particularly related to, but not limited to land use and circulation plans, and the Specific Plans' financing sections are correlated to provide for adequate infrastructure throughout the Comprehensive Planning District. If Specific Plans are adopted at different times within a Comprehensive Planning District, the first Specific Plan shall include an infrastructure plan addressing the entire District. (Policy III-D.1[g])

LUP-56: All policy requirements presented in the individual Comprehensive Planning District narratives (Exhibits III-2 through III-23), shall be applied wherever indicated in each individual District's narrative. (Policy III-D.1[j])

- LUP-57:** The Specific Plan for each Comprehensive Planning District shall address the policies for the relevant Growth Strategy Designation (Baseline Developed Area or Planned Urbanizing Area) presented in Chapters II, III, IV, V, VI, and VII and storm water collection, retention, and discharge. The developer must pay these costs. Building permits (residential construction) and/or certificates of occupancy (commercial construction) will not be issued until storm water facilities are installed and approved. (Policy III-D.1[k])
- LUP-58:** Each Specific Plan or Planning District shall address the need to provide sanitary sewer service, using the Sanitary Sewer Diagram presented in Chapter V. (Policy III-D.1[l])
- LUP-59:** The exact boundaries of each Comprehensive Planning District may be shifted somewhat as Specific Plans are processed. However, any proposed boundary shifts shall address all public facility and public service requirements of the Planned Urbanizing Area, as specified in Chapter V. (Policy III-D.1[m])
- LUP-60:** The orderly development of Comprehensive Planning Districts, particularly the planning, installation, and financing of infrastructure, requires that Specific Plans be of sufficient size. "Sufficient size" means a minimum of one-third of the total area of the following Comprehensive Planning Districts: Beckwith/Dakota, College West, Highway 132, and Kiernan/McHenry. A Specific Plan may encompass a smaller area if the City finds that it will constitute a significant portion of a distinct and cohesive neighborhood and will otherwise correlate with planning, installation, and financing of infrastructure for the Comprehensive Planning District.
- "Sufficient size" means a minimum of 480 acres in the following Comprehensive Planning Districts: Hetch Hetchy, Johansen, Kiernan/Carver North, Paradise/Carpenter, Roselle/Claribel, or Whitmore Carpenter. A Specific Plan may encompass a smaller area if the City finds that it will constitute a significant portion of a distinct and cohesive neighborhood and will otherwise correlate with planning, installation, and financing of infrastructure for the Comprehensive Planning District.
- No size standard is established for the Dry Creek, Stanislaus River, and Tuolumne River CPDs. No size standard is necessary in those Comprehensive Planning Districts where a comprehensive Specific Plan or Plans have been adopted. Similarly, no size standard is established for the Salida Comprehensive Planning District area. (Policy III-D.1[n])

The following Urban Growth Review policies apply to land use and planning impacts (City of Modesto 2003c).

- LUP-61:** The UAGP provides for a periodic review of the City's Urban Area Growth Policy. The primary purpose of the review is to assure that there is an adequate inventory of vacant and agricultural land served with urban infrastructure to accommodate anticipated economic development during the next five years. If there is not sufficient inventory, there is a deficit in needed land and additional land should be added to the Current Inventory. The last urban growth review was accepted by the City Council in July 2003.

The following voter advisory acts apply to land use decisions in Modesto.

- LUP-62:** Modesto voters enacted Measure A, the "Citizens' Advisory Growth Management Act," in 1979, to require the City Council to hold a citizens advisory vote before extending sewer trunk lines to areas outside of the current sewer service area.

LUP-63: Measure M, the “Modesto Citizens’ Advisory Growth Management Act of 1995,” was approved in 1997. The purpose of Measure M is to extend the advisory votes required by Measure A to all sewer improvements.

Other policies related to land use and planning include the following.

- LUP-64:** The City of Modesto applies “Smart City” principles to planning. (Goal V.A)
- LUP-65:** Mix land uses within neighborhoods. (Strategy V.A.1)
- LUP-66:** Promote compact building design. (Strategy V.A.2)
- LUP-67:** Create housing opportunities and choices for a range of household types, family sizes and incomes. (Strategy V.A.3)
- LUP-68:** Create walkable communities. (Strategy V.A.4)
- LUP-69:** Foster distinctive, attractive communities with a strong sense of place. (Strategy V.A.5)
- LUP-70:** Preserve open space, farmland, natural beauty, historic buildings, and critical environmental areas. (Strategy V.A.6)
- LUP-71:** Reinvest in and strengthen existing communities and achieve more balanced regional development. (Strategy V.A.7)
- LUP-72:** Make development decisions predictable, fair, and cost effective. (Strategy V.A.8)
- LUP-73:** Manage development to achieve an orderly development pattern and a balanced economy. Agricultural preservation and achieving a jobs-housing balance are priorities. (Goal V.B)
- LUP-74:** Achieve an equitable jobs-housing balance and avoid fiscal strains of leapfrog development. (Strategy V.B.1)
- LUP-75:** Expand city limits to include urbanized unincorporated areas that are substantially surrounded by city. (Strategy V.B.2)
- LUP-76:** Maintain a strong central business district as an identifiable center for all of Stanislaus County. (Strategy IX.A)
- LUP-77:** Preserve and revitalize downtown. (Strategy IX-B)
- LUP-78:** Promote high density housing in the downtown core. (Strategy IX.C)

The City’ Municipal Code also contains regulations pertaining to land use and planning (City of Modesto 2007d).

LUP 79: Titles 9, 10, 11, and 12 (Building Regulations; Planning and Zoning; Public Utilities; and Parks, Recreation and Neighborhoods, respectively) of the City Municipal Code contain the City’s planning, zoning, subdivision, and building regulations.

e. Other Governing Bodies

(1) Stanislaus County Local Agency Formation Commission

State law established the Stanislaus County LAFCo to administer the local government reorganization process. This includes incorporation of new cities, formation of special

districts, annexations to cities and special districts, and establishment of spheres of influence for all cities and special districts. The LAFCo is responsible for the orderly provision of services and the conservation of agricultural and open-space lands. It is composed of elected officials from Stanislaus County and its cities, as well as members-at-large. The LAFCo decides whether land is to be annexed to the City of Modesto and which agency (i.e., county, city, or special district) will provide services to newly annexed areas.

(2) City of Ceres

The City of Ceres is located directly south of Modesto. Its sphere of influence abuts the Modesto planning area. Ceres has adopted its own general plan that guides development within the city. Land use in the unincorporated areas surrounding Ceres is regulated by the County.

(3) City of Riverbank

The City of Riverbank is located directly north of Modesto. Its sphere of influence abuts the Modesto planning area. Riverbank has adopted its own general plan that guides development within the city. Land use in the unincorporated areas surrounding Riverbank is regulated by the County.

(4) Stanislaus Council of Governments

(a) Regional Transportation Plan

The Stanislaus Council of Governments (StanCOG) is the region's transportation planning agency and prepares the Regional Transportation Plan (RTP) (Government Code Section 65080, et seq.). Along with the Regional Transportation Improvement Program, the RTP is the basis for state and federal funding of transportation improvements. The RTP describes the proposed, priority transportation system, including roads, mass transit, and pedestrian and bicycle facilities for the county. The RTP also describes the region's transportation objectives and policies. It contains an action element describing the programs that will implement the plan, as well as a financial element describing the cost of plan implementation.

(5) Airport Land Use Compatibility Plan

Pursuant to Public Utilities Code sections 21670–21679.5, Airport Land Use Commissions (ALUCs) have the authority to regulate land use decisions in the vicinity of airports in order to "protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to the extent that these areas are not already devoted to incompatible uses." The commission's chief business is to prepare and enforce a land use plan for the area

surrounding each general aviation airport in the county. After adopting an airport land-use compatibility plan, the ALUC is to review the land use plans and zoning ordinances of cities and other local agencies (such as school districts) that affect the area within the airport planning boundary established by the ALUC. Section 21676 provides that local agencies whose general plan includes areas covered by an ALUC plan must submit a copy of its general plan and specific plans to the commission. Before amending a general plan or specific plan or adopting a zoning ordinance that overlaps with the ALUC's plan boundaries, the local agency must first refer the proposed action to the ALUC. The local agency may only adopt a general plan or specific plan or zoning ordinance that conflicts with the ALUC plan upon a 2/3rds majority vote of its legislative body.

In 2003, the legislature limited the ability of local agencies to overrule the ALUC (Assembly Bill [AB] 332). A local agency that proposes to overrule the ALUC must first provide the ALUC and the California Department of Transportation (Caltrans) Division of Aeronautics, with the proposed decision at least 45 days in advance. Any comments by the ALUC or Division of Aeronautics must be included in the final record of the local agency's final decision to overrule the ALUC.

The Stanislaus County ALUC has adopted an airport land-use compatibility plan for the Modesto City-County Airport with the plan's boundaries being the outer boundaries of the Modesto City-County Airport Approach and Clear Zone Plan (Stanislaus County Airport Land Use Commission 2004). This is an oval area generally encompassing the central, eastern, and southeastern portions of the Modesto planning area and the City of Ceres.

(6) Natural Habitat Planning and Open Space Conservation Programs

Although there are no relevant habitat conservation plans (HCPs) or natural community conservation plans (NCCPs) in the City of Modesto, there are three riparian corridors within the planning area (Dry Creek, Stanislaus River, Tuolumne River) that are designated as CPDs under the UAGP. Development within these areas is subject to a Comprehensive Plan and a focused EIR prepared for that plan per Policies III-D.1[e] and [g] of the UAGP. The Tuolumne River CPD includes a significant amount of public land owned by a joint-powers authority (JPA) made up of Modesto, Ceres, and Stanislaus County. The JPA has completed and the City has certified a Master EIR for the TRRP Master Plan.

(7) Policies That Avoid Impacts

The following City policies are in effect or proposed as part of this update and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Area. County policies are included because they reduce or avoid cumulative impacts. The policy reference numbers are listed, and the full text of these policies is found in Section A-4, *Existing Policies Applying to the Study Area*.

(a) Stanislaus County Policies:

The territory outside the city limits is under Stanislaus County jurisdiction. The Stanislaus County General Plan has the following applicable policies, identified in Section A-4 above: LUP-1 through LUP-25.

(b) City of Modesto Policies

The UAGP provides the following policies identified in Section A-4 related to land use and planning:

1. Baseline Developed Area: LUP-26 through LUP-48
2. Planned Urbanizing Area: LUP-49 through LUP-79

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by the California Environmental Quality Act

CEQA directs agencies to analyze effects on the environment, including land use and planning, using Appendix G of the State CEQA Guidelines.

Appendix G of the State CEQA Guidelines is a sample checklist for assessing potential impacts on land use and planning. It offers the following broad suggestions for impact assessment: Would the project:

- a. Physically divide an established community?
- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

2. Thresholds of Significance Suggested by Other Analytical Methods

No applicable thresholds of significance by other analytical methods are available.

3. Thresholds of Significance Adopted by the City of Modesto

The City will use the thresholds set out in the State CEQA Guidelines.

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The policies of the UAGP would not result in physical division of an established community, a conflict with applicable plans or policies, or land use/operational conflicts between existing and proposed uses. Therefore, the impacts of development on land use and planning in these areas will be less than significant.

b. Planned Urbanizing Area

UAGP Figure II-1, Adopted Land Use Diagram, does not identify any proposed land use designations that would divide an established community, and the UAGP includes several policies that serve to build community, including promoting the variety of land uses needed for walkable communities.

The UAGP is also consistent with applicable land use policies. As identified above under Section A-4, *Existing Policies Applying to the Study Area*, LUP-27 would ensure that zoning changes are consistent with the intent of the General Plan; LUP-29, 32, 50, 56, 57, and 58 would ensure that the Specific Plans implement the vision of the UAGP within the relevant CPDs, including addressing relevant Growth Strategy Designations; and LUP-30 would ensure that the land use designations at the Jennings River and Sutter Avenue wastewater sites are consistent with those identified in the TRRP Master Plan. LUP-61 promotes the periodic review of the Urban Area Growth Policy by the City Council.

One of the primary purposes of land use planning is to minimize the impacts that various land uses have on adjacent areas. A number of land uses, including industrial and commercial, can significantly impact sensitive land uses, such as residential neighborhoods, schools, and office uses. A number of UAGP policies serve to reduce potential land-use compatibility impacts: LUP-31 promotes an orderly pattern of development; LUP-33 promotes the creation of Transit Villages which would place transit-oriented development with compatible uses to ensure the highest use of public transit; and the Neighborhood Planning Prototype Policies in LUP-34 through LUP-40 would ensure compatible uses within residential neighborhoods. LUP-62 and 63 remind that Measures A and M require voter advisory approval of development outside the current service boundary (the vote is advisory to the City Council). Although the UAGP foresees the expansion of the City's sphere of influence and the future annexation of currently unincorporated lands, LAFCo would be the responsible decision-making authority in determining whether these lands would be appropriate to annex into the City boundaries and how public services are to be provided efficiently.

The UAGP distributes land uses to minimize land use impacts and contains specific goals and policies to mitigate existing or potential conflicts. The UAGP strives to preserve, revitalize, and ensure compatibility throughout the City by promoting mixed-use developments and transit-oriented development in strategic locations, redevelopment of blighted areas and the downtown core, and preservation of historic neighborhoods. Additional guidance ensures quality development and integration with surrounding areas. Therefore, the impacts of development on the Planned Urbanizing Area related to the land use and planning are considered less than significant.

There is no habitat conservation plan or natural communities conservation plan in effect in Stanislaus County, so this consideration does not apply.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect.

A cumulative impact analysis first identifies whether there exists a cumulatively significant effect in the given resource area. If so, it determines whether the project will make a considerable contribution to that effect. Where a cumulative impact is severe, even a small contribution may be considerable. Where a project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact, its contribution will be rendered less than considerable. (Section 15130(a) of the State CEQA Guidelines)

No cumulative impacts are identified for land use and planning because measures are in place to reduce cumulative impacts under the UAGP. Accordingly, the project would not contribute to a cumulative impact and therefore, the cumulative impact is less than significant. The project's contribution to the cumulative impact on agriculture is analyzed in Master EIR Section V-4.

6. Impacts for Which there Is Insufficient Information to Support a Full Analysis

There is no such impact for land use and planning.

C. MITIGATION MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures That Mitigate Direct Impacts

The adopted and proposed policies of the UAGP (Proposed UAGP update policies LUP-27 through LUP-63), listed in Section A-4, *Existing Policies Applying to the Study Area*, would eliminate direct impacts by promoting mixed-use developments and transit-oriented development in strategic locations, and requiring the comprehensive planning of new development areas.

2. Measures That Mitigate Cumulative Impacts

The adopted and proposed policies of the UAGP (Proposed UAGP update policies LUP-27 through LUP-63), listed in Section A-4, *Existing Policies Applying to the Study Area*, and applicable to

direct impacts, would also mitigate the cumulative impact on land use and planning by minimizing any divisions of communities and land use conflicts on lands annexed to the City in the future.

3. Alternatives to the Proposed Project.

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

The project does not result in significant impacts to land use and planning. No alternative designs that would lessen effects are necessary.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The mitigation measures identified in the Master EIR have been incorporated into the UAGP and are implemented by that plan. City staff provides the City Council with an annual report of General Plan implementation. Therefore, no separate mitigation monitoring plan is required in the UAGP Master EIR.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on land use and planning as long as the following circumstances have not changed.

1. The lead agency for subsequent projects shall be the City of Modesto or any responsible agency identified in the Master EIR.
2. The following City policies found in Section A-4, *Existing Policies Applying to the Study Area*, continue to be in force to reduce, avoid, or mitigate impacts: LUP-26 through LUP-79.
3. No additional significant effect on land use and planning is identified within the planning area, and no new mitigation measures are required.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in Section B, *Consideration and Discussion of Significant Environmental Impacts*, is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.

2. The planning area is expanded beyond the May 2008 (estimated date of certification for General Plan/Master EIR Update) boundaries.
3. Substantial changes have occurred with respect to the circumstances under which the UAGP is being undertaken that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and new or additional mitigation measures or alternatives may be required.

Section 21

Climate Change

This section describes how development and other activities associated with the *City of Modesto Urban Area General Plan* (UAGP) would contribute to global climate change. Mitigation measures are provided herein to reduce impacts of future development. Some of the policies and mitigation measures identified for traffic, air quality, and energy in Sections V-1, V-2, and V-18, respectively, will also help mitigate climate change impacts by reducing consumption of fossil fuels. However, traffic measures that increase road capacity tend to induce new vehicle trips, resulting in increased vehicle miles traveled (VMT) and increased greenhouse gas emissions. The trend toward increased VMT associated with future development within the UAGP is substantial, in excess of the rate of population growth. (California Energy Commission 2007)

A. ENVIRONMENTAL SETTING

The following information is provided in accordance with Section 15125 of the California Environmental Quality Act (CEQA) Guidelines. This environmental setting is the baseline for determining whether an impact of the UAGP is significant.

1. Study Area for Direct Impacts

The project does not have any direct impacts as defined in CEQA on global climate change. As defined in Section 15358 of the State CEQA Guidelines, direct impacts “are caused by the project and occur at the same time and place.” The cause of global climate change is generally accepted to be the increased production of greenhouse gases resulting from human activities worldwide. As a result, there is no discrete study area for direct impacts.

2. Study Area for Cumulative Impacts

This analysis is based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The study area for cumulative impacts on climate change is the whole earth. Because of the broad study area involved with global climate change, there is no plan that fully describes the impact. At the same time, the scope of the affected area and contributing factors makes a list approach infeasible. As a result, this section will rely on studies that describe the issue broadly.

The UAGP authorizes development that will contribute to global climate change by virtue of the production of greenhouse gases. While the effects of local greenhouse gas production are not noticeable at the local level, local development and human activity nonetheless contribute to global greenhouse gas emissions. In particular, the projected rate of growth of VMT will increase the City’s contribution to global climate change as the City develops.

3. Existing Physical Conditions in the Study Area

a. Overview

Air quality conditions in Modesto and the San Joaquin Valley Air Basin are discussed in Section V-2, *Air Quality*.

b. Greenhouse Gases

Activities such as fossil fuel combustion, deforestation, and other changes in land use result in the accumulation of greenhouse gases (GHGs) such as carbon dioxide (CO₂) in our atmosphere. An increase in GHG emissions results in an increase in the earth's average surface temperature, which is commonly referred to as *global warming*. Global warming is expected, in turn, to affect weather patterns, average sea level, ocean acidification, chemical reaction rates, precipitation rates, etc., in a manner commonly referred to as *climate change*.

The Intergovernmental Panel on Climate Change (IPCC) has been established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC's best estimates are that the average global temperature rise between 2000 and 2100 could range from 0.6°C (with no increase in GHG emissions above year 2000 levels) to 4.0°C (with substantial increase in GHG emissions) (Intergovernmental Panel on Climate Change 2007). Large increases in global temperatures will have massive deleterious impacts on the natural and human environments.

According to the Federal Environmental Protection Agency (EPA), a GHG is any gas that absorbs infrared radiation in the atmosphere. This absorption traps heat within the atmosphere, creating a "greenhouse" effect that is slowly raising global temperatures. GHGs include water vapor, CO₂, methane (CH₄), nitrous oxide (N₂O), halogenated chlorofluorocarbons (HCFCs), ozone (O₃), perfluorinated carbons (PFCs), and hydrofluorocarbons (HFCs). Naturally occurring GHGs include water vapor, CO₂, CH₄, N₂O, and O₃. Many human activities add to the levels of most of these naturally occurring gases. CO₂ is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. N₂O is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. CO₂ and N₂O are the two GHGs released in greatest quantities from mobile sources burning gasoline and diesel fuel.

The California Energy Commission's *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004* estimates that California is the second largest emitter of GHG emissions in the United States (only Texas emits more GHG). The Commission estimates that in 1990, California's gross GHG emissions amounted to between 425 and 452 million metric tons of CO₂ equivalent. The California Energy Commission (CEC) estimates that in 2004, California's gross GHG emissions were 492 million metric tons of CO₂ equivalent. The transportation sector produced approximately 40.7 percent of California's GHG emissions in 2004. Electric power production accounted for approximately 22.2 percent of emissions (including estimated emissions from out-of-state coal-fired power plants), the industrial

sector contributed 20.5 percent of the total, agriculture and forestry contributed 8.3 percent, and other sectors contributed 8.3 percent (California Energy Commission 2006).

Sinks of CO₂ (which absorb, rather than produce, CO₂), include uptake by vegetation and dissolution into the ocean. GHG production greatly exceeds the absorption capacity of natural sinks. As a result, concentrations of GHG in the atmosphere are on the increase. (California Energy Commission 2006)

Estimates of GHG emissions do not include additional "lifecycle" emissions related to transportation, such as the extraction and refining of fuel and the manufacture of vehicles, which are also significant sources of domestic and international GHG emissions (Environmental Protection Agency 2007). Since the industrial revolution, concentrations of GHGs in the earth's atmosphere have been gradually increasing. Recently recorded increases in the earth's average temperature are the result of increases in concentrations of GHG.

Climate change is a global problem, and GHGs are global pollutants, unlike criteria air pollutants (such as ozone precursors) and toxic air contaminants (TACs), which are pollutants of regional and local concern. Worldwide, California is estimated to be the 12th to 16th largest emitter of CO₂ (California Energy Commission 2006) and is responsible for approximately 2 percent of the world's CO₂ emissions (California Energy Commission 2006).

These changes in California's climate and ecosystems are occurring at a time when California's population is expected to increase from 34 million to 59 million by 2040 (California Energy Commission 2006). As such, the number of people potentially affected by climate change, as well as the amount of anthropogenic GHG emissions expected under a "business as usual" scenario, is expected to significantly increase. Similar changes as those noted above for California also would occur in other parts of the world, with regional variations in resources affected and vulnerability to adverse effects.

At a local level, emissions of CO₂ under 2005 conditions were calculated for the UAGP planning area using the EMFAC2007 modeling program based on traffic data provided by Fehr & Peers for this master environmental impact report (Master EIR). Appendix C describes the methodology and assumptions used to model CO₂ emissions. The results of the EMFAC2007 modeling indicate that, as of 2005, vehicular traffic within the Modesto planning area emitted approximately 1,207,624.4 metric tons (1,331,176.9 U.S. tons) of CO₂ on an annual basis. This is based on an estimated 6,835,210 VMT per day for 2005.

As a point of reference, in 1990 the City of Modesto's estimated level of CO₂ emissions from mobile sources was approximately 724,495 metric tons (798,620 U.S. tons). The 1990 population was used in conjunction with county-level EMFAC2007 model defaults to estimate vehicles, trips, VMT, and emissions for Modesto as a proportion of Stanislaus County. In 1990, the population within the corporate limits of Modesto represented approximately 44 percent of the County's total population; by 2006, Modesto's share of the countywide population had declined to approximately 40 percent.

4. Existing Policies Applying to the Study Area

Reducing GHG emissions will rely on reducing the levels of generation by vehicles, reducing consumption of energy generated by GHG emitting power plants, changes in industrial practices, and other actions. Following is a comprehensive list of major federal, state and local (county and City) policies in effect that apply to the study area. This list provides the full range of applicable policies that a project within the study area would potentially need to comply with, including policies beyond the jurisdiction of the City of Modesto. This list of laws, regulations, and programs also serves to describe the circumstances under which the environmental topic was analyzed.

As a global issue, climate change is being addressed internationally, as well. Numerous other countries, particularly the United Kingdom and the members of the European Union, have enacted policies and regulations intended to reduce global GHG emissions. These address industrial practices, land use patterns, energy conservation, alternative energy sources, and transport. Those policies and regulations are too numerous to repeat here. With regard to reduction targets, each of the countries that are signatories to the 2005 Kyoto Protocol have accepted the goal of reducing their GHG emissions by an individual amount to reach an overall reduction of 5 percent below 1990 levels by 2008 and 2012. The United States is not a signatory.

A discrete reference number, following the initials of the resource topic, is assigned to each policy or policy summary listed to facilitate its identification elsewhere in this Master EIR or, where appropriate, its incorporation as a mitigation measure into subsequent projects analyzed under this Master EIR (e.g., Climate Change policies are designated as CL-*X*, where *X* is the discrete number).

a. Federal Regulations

There are no federal regulations aimed at GHG, per se. In April 2007, the U.S. Supreme Court ruled 5–4 in the case of *Massachusetts v. EPA* that the federal EPA has the authority under the Clean Air Act (CAA) to regulate GHG emissions from new motor vehicles. However, as of this writing, the EPA has not enacted any such regulations.

b. State Regulations

California has been a national leader in enacting legislation and regulations intended to reduce GHG emissions. Since 2002, the state has been enacting legislation and regulations that are intended to reduce contributions to GHG.

Assembly Bill 1493

Assembly Bill (AB) 1493 (Chapter 200, Statutes of 2002) directed the California Air Resources Board (ARB) to adopt regulations that achieve feasible and cost-effective GHG emissions reductions from motor vehicles. The ARB did so in 2004 and applied to the federal EPA for a waiver under the federal CAA to authorize these regulations to be implemented. The waiver request was denied by the EPA in December 2007. In January 2007, the State Attorney General filed a lawsuit against the EPA, challenging its denial of the requested waiver. The outcome of the state's suit is pending.

Assembly Bill 32

AB 32, the Global Warming Solutions Act of 2006, requires the State of California to reduce its carbon emissions by approximately 25 percent by 2020. The legislative intent of AB 32 states that global warming poses a serious threat to the environment of California, requiring immediate action. More specifically, AB 32 assigns ARB responsibility for identifying the baseline emissions in 1990, and establishing regulations that will monitor and reduce GHG emissions so that California can reduce its emissions to 1990 levels by 2020.

AB 32 assigns the following tasks to ARB:

- By January 1, 2008, establish a statewide GHG emissions cap for 2020, based on 1990 emissions. In early December 2007, ARB released a 2020 target of 427 million metric tons (by way of comparison, the state was estimated to emit approximately 500 million metric tons in 2007).
- Adopt mandatory reporting rules for significant sources of greenhouse gases by January 1, 2008.
- Adopt a plan by January 1, 2009, indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms, and other actions.
- Adopt regulations by January 1, 2011, to achieve the maximum technologically feasible and cost-effective reductions in GHGs, including provisions for using both market mechanisms and alternative compliance mechanisms.
- Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise ARB.
- Ensure public notice and opportunity for comment for all ARB actions.
- Prior to imposing any mandates or authorizing market mechanisms, requires ARB to evaluate several factors, including but not limited to: impacts on California's economy, the environment, and public health; equity between regulated entities; electricity reliability, conformance with other environmental laws, and to ensure that the rules do not disproportionately impact low-income communities.
- Adopt a list of discrete, early action measures by July 1, 2007, which can be implemented before January 1, 2010, and adopt such measures. ARB has reached this milestone.

Executive Order S-3-05

This Executive Order, signed by Governor Schwarzenegger in June 2005, includes the following provisions:

- The following greenhouse gas emission reduction targets are hereby established for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels;
- The Secretary of the California Environmental Protection Agency ("Secretary") shall coordinate oversight of the efforts made to meet the targets with the Secretary of the Business, Transportation and Housing Agency; Secretary of the Department of Food and

Agriculture; Secretary of the Resources Agency; Chairperson of the ARB; Chairperson of the CEC; and the President of the Public Utilities Commission;

- The Secretary shall report to the Governor and the State Legislature by January 2006 and biennially thereafter on progress made toward meeting the greenhouse gas emission targets established herein; and
- The Secretary shall also report to the Governor and the State Legislature by January 2006 and biennially thereafter on the impacts to California of global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry, and shall prepare and report on mitigation and adaptation plans to combat these impacts.

Executive Orders are directives to state agencies from the Governor of California. They do not govern local agency actions, nor do they affect the State Legislature. While S-3-05 is an indicator of state policy as interpreted by the Governor, it does not reflect the view of the Legislature. It is, however, one of the factors being considered by state agencies such as the ARB, the CEC, and the Building Standards Commission in formulating their GHG reduction strategies.

Energy conservation standards for new residential and non-residential buildings were adopted by California Energy Resources Conservation and Development Commission (CERCDC) in June 1977 and most recently revised in 2005. Title 24, Part 6 of the California Code of Regulations (CCR) (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) was established in 24 CCR Part 6 in 1978, in response to a legislative mandate to reduce California's energy consumption. Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2006 Appliance Efficiency Regulations, (Title 20, CCR Sections 1601 through 1608) dated December 2006, were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often seen as "business as usual," they do exceed the standards imposed by any other state and reduce GHG emissions by reducing energy demand.

In mid-February 2008, the California Building Standards Commission begins the process of adopting the California Green Building Standards Code (proposed Part 11, Title 24) as part of the California Building Standards Code (Title 24, California Code of Regulations). This Green Building Code is intended to encourage reduction of GHG emissions in recognition of AB 32 and Executive Order S-3-05. As proposed in December 2007, Part 11 would establish voluntary standards including planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The effectiveness of this prospective code will depend upon its adoption and implementation by local agencies. (California Building Standards Commission 2007.)

California Energy Commission

The CEC prepares California's GHG inventory, is developing transportation fuel policy, and manages climate change technical research programs. It also coordinates a number of energy

efficiency programs, including the emerging renewables program that offers rebates on small wind and fuel-cell electrical generation systems.

- CL-1:** Reduce statewide GHG emissions to 1990 levels by 2020. Additionally, pursuant to S-3-05, state agencies are to reduce GHG emissions to 2000 levels by 2010, reduce GHG emissions to 1990 levels by 2020, and reduce GHG emissions to 80 percent below 1990 levels by 2050.

c. San Joaquin Valley Unified Air Pollution Control District Programs

The San Joaquin Valley Air Pollution Control District (SJVAPCD) has not adopted programs addressing global climate change. Eventually, as AB 32 is implemented and guidance is provided by ARB, the SJVAPCD is expected to adopt regulations to reduce GHG emissions.

Separately, the California Air Pollution Control Officers Association has issued a white paper suggesting some approaches for air districts. This is not been adopted as an official policy by any districts. (California Air Pollution Control Officers Association 2008) Also, the South Coast Air Quality Management District, which regulates the Los Angeles basin, announced in 2008 that it is drafting CEQA thresholds for the South Coast basin. Both of these initiatives may serve as starting points for air districts to establish policies for the examination of GHG in CEQA documents.

d. Stanislaus County Policies

The territory outside the Modesto city limits is under Stanislaus County jurisdiction. Stanislaus County has no direct GHG emissions reduction policies or goals. However, the following goal will reduce emissions, to some extent, through energy conservation.

- CL-2:** Conserve resources through promotion of waste reduction, reuse, recycling, composting, ride-share programs, and alternative energy sources such as mini-hydroelectric plants, gas and oil exploration, and transformation facilities such as waste-to-energy plants. (Conservation/Open Space Element Goal 11)

e. City of Modesto Policies

The UAGP provides the following policies that relate to reducing GHG production by promoting energy conservation and the use of non-emitting energy sources.

The California Environmental Quality Act identifies energy conservation as a goal in community development. Under the CEQA Guidelines, a project may have a significant environmental impact if it will “use fuel, water, or energy in a wasteful manner.” The following policies employed by the City provide sufficient mitigation for those impacts.

- CL-3:** Removal of street trees shall be strenuously discouraged unless they are badly diseased and have become a threat to public safety. If a tree must be removed, it should be replaced no later than the end of the next planting season with a large-canopy species. (UAGP Policy VII-H.2[c]) [This will be implemented through review of individual development projects.]

- CL-4:** The City of Modesto shall require shade trees, where feasible and appropriate, in landscape plans for all new development proposals. Mature trees have lower water needs. The City shall develop shade-tree specifications for different land uses (residential, commercial, parking lots, etc.) including appropriate types of trees (size, deciduous or evergreen, absence or lower branches, etc), locations (e.g., distance from structures), density (i.e., within a subdivision or parking lot), and orientation (trees on the west side of a building generally provide the most benefit) for use in landscape plans. (UAGP Policy VII-I.1[a]) [This will be implemented through review of individual development projects.]
- CL-5:** The City shall require the planting of large-canopy species in new development areas in such a way that they grow to full size without damaging streets and sidewalks (including, but not limited to, deep watering until roots are well established, proper fertilizers, root barriers, and structured soils). (UAGP Policy VII-I.1[b])
- CL-6:** The goal of the street tree maintenance program is to maintain trees in the best possible health by ensuring that newly planted trees are cared for in such a way as to prevent or minimize sidewalk and street damage (including, but not limited to, deep watering until roots are well established, proper fertilizers, root barriers, and structured soils), pruning to remove mistletoe as often as necessary, pruning to prevent the tree from leaning, and using measures to control disease. (UAGP Policy VII-I.1[d])
- CL-7:** The City of Modesto shall encourage the Modesto and Turlock Irrigation Districts to establish and promote a program whereby existing residential and commercial building owners are provided incentives to increase the number of shade trees in developed parts of the City. The City shall also provide information on appropriate types of trees and their locations to maximize the energy savings from the program. (UAGP Policy VII-I.1[e]) [This will be implemented through interagency cooperation with MID and TID.]
- CL-8:** The City of Modesto shall coordinate with the Modesto and Turlock Irrigation Districts (for electricity) and Pacific Gas & Electric Company (for natural gas) on all new, large-scale, development proposals in the City. (UAGP Policy VII-I.1[f]) [This will be implemented through interagency cooperation with MID and TID.]
- CL-9:** The City of Modesto shall encourage the use of solar energy systems for residential, agricultural, parks, public buildings, and business purposes as provided in Government Code Section 65892.13. (General Plan Policy VII-I.1[g].) [This will be implemented through review of individual development projects.]
- CL-10:** Lots in new subdivisions should be oriented in such a way to maximize solar energy. (UAGP Policy VII-I.1[h]) [This will be implemented through review of individual development projects.]
- CL-11:** The City of Modesto shall approve applications for solar energy systems in accordance with State Assembly Bill 2473 (2004). (UAGP Policy VII-I.1[i]) [This will be implemented through review of individual development projects.]
- CL-12:** To reduce heat gain from pavement, consider reducing street rights-of-way and pavement widths to pre-World War II widths (typically 22 to 34 feet curb-to-curb for local streets, 30 to 35 feet curb-to-curb for collector streets) and consider working with StanCOG to shift transportation money away from automobile transportation and toward non-automobile transportation; to realign CMAQ (Congestion Mitigation Air Quality Improvement Program) dollars and other similar flexible funds to non-automobile projects and clean-fuel vehicle projects; to promote increases in funding for transit, bicycle, and pedestrian projects; to promote the establishment of a regional bicycle coordinator; and to require accountability for local expenditures on bicycle and pedestrian facilities. The City shall reinstate the use of parkway strips, which allow

shading of streets by street trees. (UAGP Policy VII-I[j]) [This will be implemented through review of individual development projects.]

- CL-13:** The City shall consider instituting a development pattern that facilitates non-automobile transportation. Features of such a pattern may include redirecting growth into existing city limits in specified areas, reducing road widths, increasing sidewalk widths, and adding Class II bicycle facilities to city streets. (UAGP Policy VII-I[k]) [This will be implemented through review of individual development projects.]
- CL-14:** The City shall consider renegotiating employee union contracts to eliminate parking subsidies for public employees, encourage carpools through preferential parking and a graduated parking fee, institute parking payouts, institute on-street metered parking that is consistent with current philosophies and technologies. (UAGP Policy VII-I[l]) [This will be implemented through review of individual development projects.]
- CL-15:** The City shall purchase clean-fuel/alternative fuel fleet vehicles. (UAGP Policy VII-I[m]) [This will be implemented through review of individual development projects.]
- CL-16:** All commercial development projects shall include bicycles racks and changing rooms to facilitate trips by bicycle and on foot by both employees and customers. (UAGP Policy VII-I[n]) [This will be implemented through review of individual development projects.]
- CL-17:** The City shall attempt to facilitate development of “brownfields,” which is property on which development is complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. (UAGP Policy VII-I[o]) [This will be implemented through review of individual development projects.]

The following policies are intended to encourage the use of energy conservation features and low-emission equipment for all new residential and commercial development:

- CL-18:** The City of Modesto shall work with the local energy providers and developers on voluntary incentive based programs to encourage the use of energy efficient designs and equipment. (UAGP Policy VII-I.1[p]) [This will be undertaken as part of the General Plan implementation program.]
- CL-19:** The City of Modesto shall cooperate with the local building industry, utilities and the SJVAPCD to promote enhanced energy conservation standards for new construction. (General Plan Policy VII-I[q]) [This will be implemented through zoning and subdivision approvals, as well individually through the SJVAPCD’s Indirect Source Review rule.]
- CL-20:** The City of Modesto shall encourage new residential, commercial, and industrial development to reduce air quality impacts from area sources and from energy consumption. (General Plan Policy VII-I[r]) [This will be implemented through review of individual development projects.]
- CL-21:** The City shall consider requiring new public buildings to achieve at least the minimum LEED™ “Certified” rating. LEED™ certification must be applied for through the United States Green Building Council (www.usgbc.org), which administers the program and reviews and evaluates working drawings. Information about required and optional design elements can be found at the U.S. Green Building Council’s website. (General Plan Policy VII-I[s]) [This will be implemented through review of individual development projects.]
- CL-22:** The City shall work with applicants and developers to encourage green building methods and practices and achieve LEED™ standards for all new development. The City shall develop a program to promote green building methods. (General Plan Policy

VII-I[t]) [This will be implemented through review of individual development projects.]

CL-23: Renovation of buildings shall achieve as many LEED™ pre-requisites and credits as feasible. (General Plan Policy VII-I[u]) [This will be implemented through review of individual development projects.]

CL-24: The City shall work with residents, businesses, and other members of the community, including architects, builders and contractors, to encourage private development within the City to use green building methods and practices and to achieve standards set by LEED™ for commercial and residential buildings. (General Plan Policy VII-I[v]) [This will be implemented through review of individual development projects.]

CL-25: New development shall comply with Green Building Standards adopted by the California Building Standards Commission incorporated in the building codes in effect at the time of building permit application. The City shall consider adopting additional measures that achieve a greater reduction in energy and water use reduction than required by state law, which may include, but not be limited to: Cool roofs; efficiency insulation; high efficiency plumbing fixtures; tankless water heaters; high efficiency space cooling and heating systems; and, high efficiency lighting. (General Plan Policy VII-I[w]) [This will be implemented through review of individual development projects.]

CL-26: The City shall encourage compliance with the new California Green Building Code Guidelines, which are expected to be adopted in 2009. (General Plan Policy VII-I[x]) [This will be implemented through review of individual development projects.]

5. Policies Which Avoid Impacts

A number of policies are being implemented internationally attempting to reduce the contributions of individual countries to global climate change. Policies are still under development at the state level. Other than energy efficiency initiatives, the federal government has been slow to promote policies to reduce GHG emissions. The following City policies are in effect and have been determined to reduce, avoid, or mitigate environmental impacts within the existing city limits and within the Planned Urbanizing Areas as they annex and develop. The policy reference numbers are listed, the full text of these policies is found in Section 4 above, *Existing Policies Applying to the Study Area*.

a. City of Modesto Policies

The City's UAGP provides the following policies: CL-3 through CL-26.

B. CONSIDERATION AND DISCUSSION OF SIGNIFICANT ENVIRONMENTAL IMPACTS

The following information is provided in accordance with Section 15126.2 of the State CEQA Guidelines.

1. Thresholds of Significance Suggested by CEQA

CEQA currently has no thresholds for GHG emissions. Senate Bill (SB) 97 of 2007 requires the Office of Planning and Research and the California Resources Agency to adopt guidelines for mitigating GHG emissions. These are expected to be available on January 1, 2010.

2. Thresholds of Significance Suggested by Other Analytical Methods

AB 32 contains legislative intent language regarding the importance of addressing climate change, with emphasis on the enactment of future state regulations that will reduce GHG emissions to 1990 levels. It does not offer guidance regarding the threshold of significance for any project. However, as a practical matter, local agencies should consider whether their policies will inhibit achievement of the 1990 objective.

3. Thresholds of Significance Approved by the City of Modesto

Climate change is a global impact, fed by a myriad of individual decisions worldwide. In and of themselves, individual projects likely do not have a significant effect on global climate change. However, taken together, these individual, less-than-significant effects combine to create a significant cumulative global effect.

The City has approved the following thresholds of significance to analyze the effects of the project on the production of GHGs.

- a. Would the general plan result in a noticeable change in global climate change?
- b. Would the general plan make a considerable contribution to cumulative global climate change?
- c. Would implementation of the general plan interfere with the implementation of AB 32's objectives (i.e., reducing GHG emissions to 1990 levels by 2020)?

4. Significant Direct Impacts

a. Baseline Developed Area and Redevelopment Area

The Baseline Developed Area and Redevelopment Area are already largely developed. New development within the Redevelopment Area will comply with Title 24 standards as well as City UAGP policies. Increased VMT will result from commuting in individual automobiles; however, this area is the most walkable and bikeable, area in Modesto, and also has the best transit service in the City. Impacts on global climate change by development in these areas (i.e., changes in levels of use above the current baseline) would not in themselves be substantial enough to cause global climate change. The impact will be less than significant.

b. Planned Urbanizing Area

The Planned Urbanizing Area is larger than the City's Baseline Developed Area and Redevelopment Area, and its development will result in a substantial increase in energy use and VMT due to the separate-use, low-intensity development that exists and is planned in that area. As discussed in Section V-1, *Traffic and Circulation*, continued development of Modesto in the Comprehensive Planning Districts (CPDs) will result in substantial new traffic congestion. Current development patterns in these areas do not support bicycling, walking, or other alternative transportation modes such that VMT will be reduced. Accordingly, future development is expected to continue the trend toward increased vehicle miles traveled for all trip types.

The following figures (Figures V-21-1- through V-21-3) show the increase in per capita VMT by trip type. The different trip types are:

- Home-Work (H-W)
- Home-Shopping (H-S)
- Home-Other (H-O)
- Work-Other (W-O)
- Other-Other (O-O)

Figure V-21-1a. Average Trip Length, Home-to-Work Trips

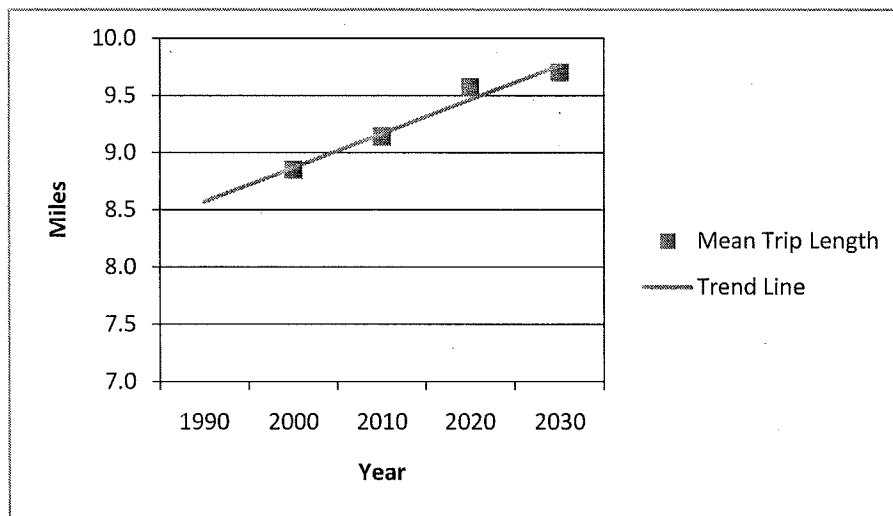


Figure V-21-1b. Average Trip Length, Home-to-Shopping Trips

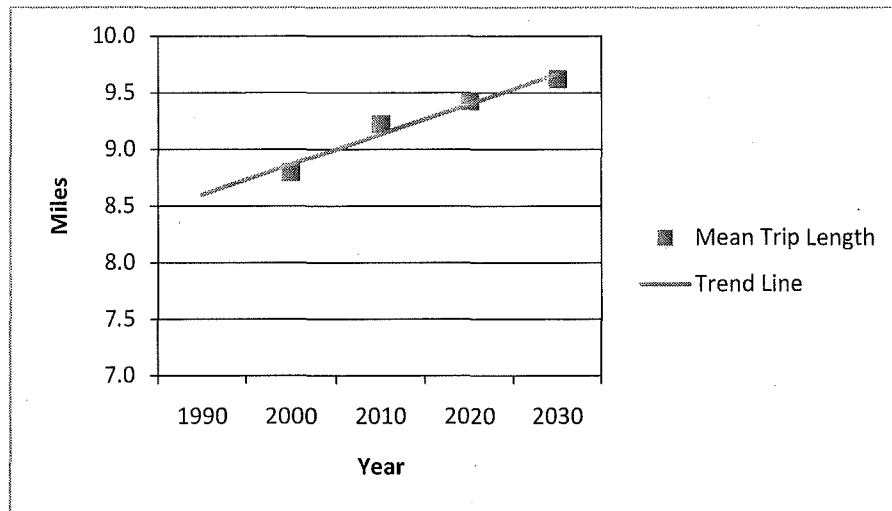


Figure V-21-1c. Average Trip Length, Home-to-Other Trips

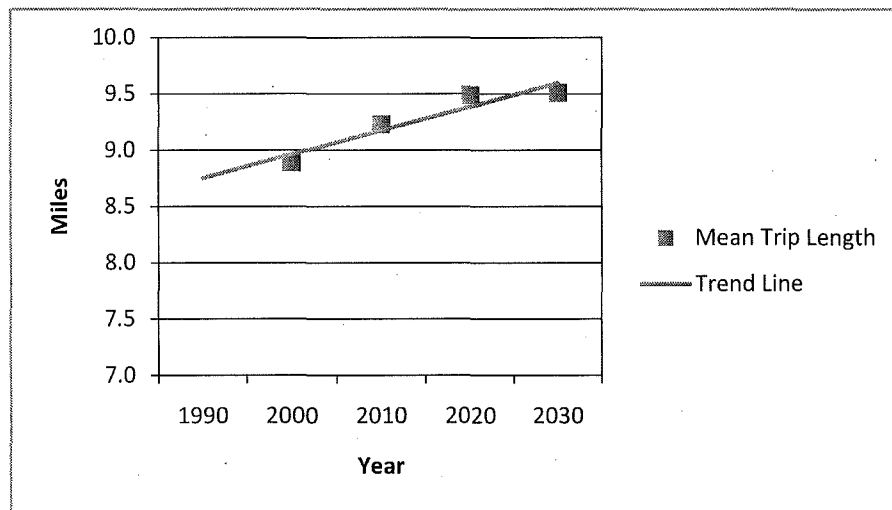


Figure V-21-1d. Average Trip Length, Work-to-Other Trips

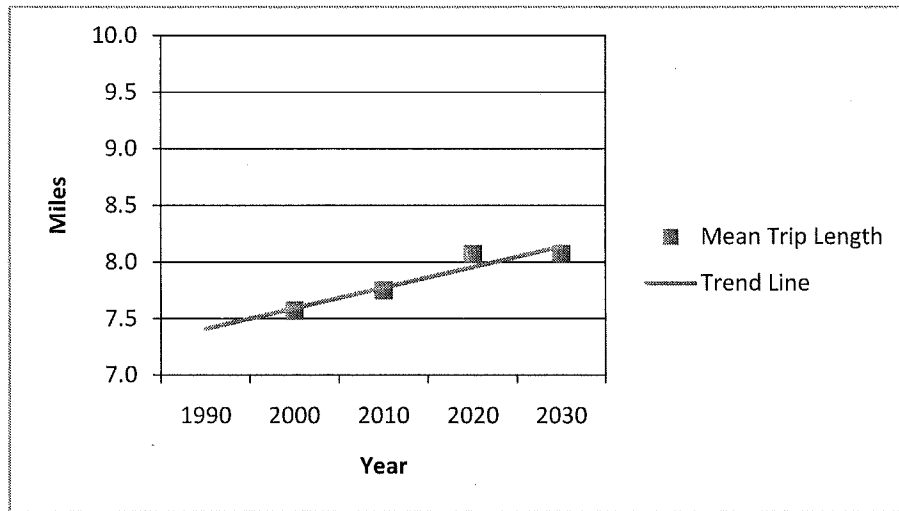


Figure V-21-1e. Average Trip Length, Other-to-Other Trips

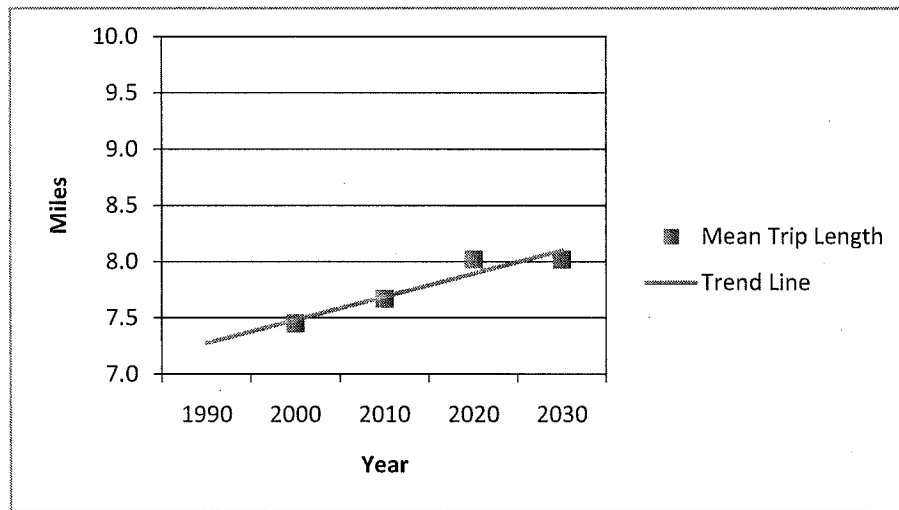


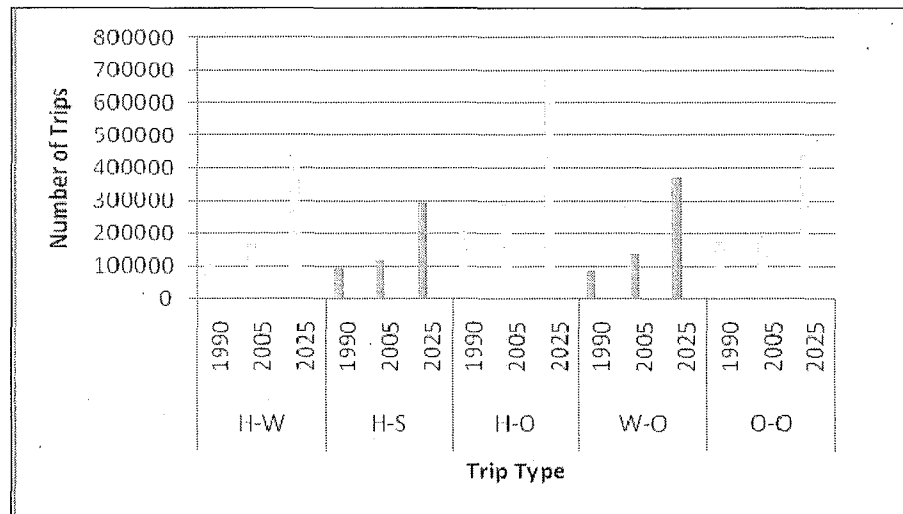
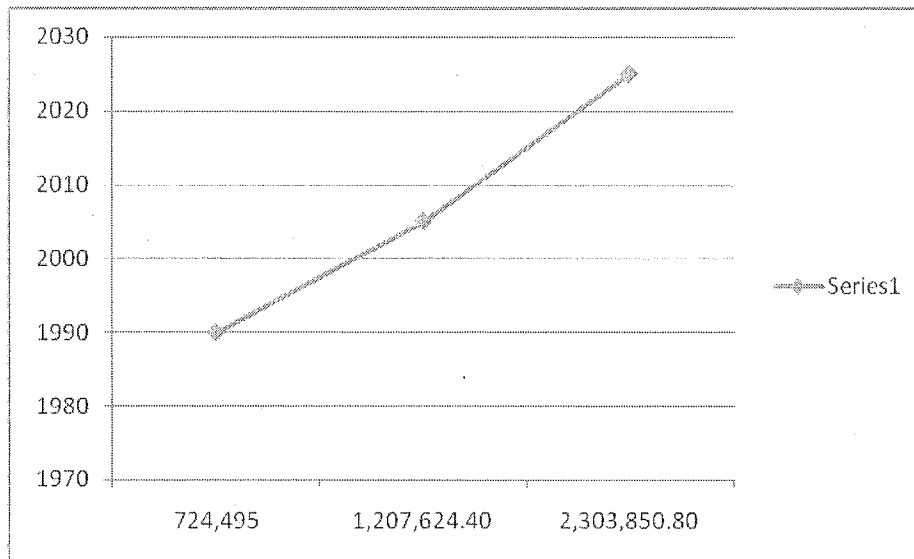
Figure V-21-2. City of Modesto Number of Trips

Figure V-21-1 shows the average trip lengths by per trip type for 1990, 2000, 2010, 2020, and 2030. Trip length data were obtained from the Stanislaus Council of Governments (StanCOG). StanCOG was unable to provide trip length data for 1990, so a regression analysis was performed for the known data points to estimate 1990 data. Figure V-21-2 shows the number of trips per trip type for 1990, 2005, and 2025. Modesto's development pattern, combined with regional settlement patterns have and will continue to result in increasing trip lengths for every trip type. The greatest rate of increase has been in home-to-work and home-to-shopping trips. Increased commute distances regionally are the result of commuters relocating to the San Joaquin Valley for lower-cost housing than is available near their Bay Area jobs. Longer home-to-shopping trips are the result of increasing aggregation of retail into larger buildings and shopping centers that are more centralized, as opposed to the older pattern of dispersed retail locations.

In 2025, based on the EMFAC2007 modeling program and traffic data provided by Fehr & Peers, development under the UAGP will generate approximately 2,303,850.8 metric tons (2,539,560.5 U.S. tons) of CO₂ from vehicular traffic (Figure V-21-3). Compared with the estimated 2005 emissions of 1,207,624.4 metric tons of CO₂ discussed above, this is an increase in GHG emissions of approximately 1,096,226.4 metric tons (1,208,369 U.S. tons) per year. There is no evidence that an increase of approximately 1,096,226.4 metric tons per year alone will cause global climate change.

Figure V-21-3. City of Modesto CO2 Emissions in Metric Tons

The increase in GHG emissions resulting from the eventual development of the CPDs within the Planned Urbanizing Area would not be sufficient to cause global warming, taken by itself. As a result, the direct impact of development to 2025 under the UAGP is less than significant. However, it will make a significant contribution to the cumulative problem, as discussed below.

5. Significant Cumulative Impacts

CEQA and the State CEQA Guidelines require the disclosure of the significant cumulative environmental effects, whether the project will make a cumulatively considerable contribution to any such effects, and, if so, mitigation measures intended to reduce the project's contribution (Section 15130 of the State CEQA Guidelines). A cumulative effect is one that results from past, present, and probable future projects. A project that has a less-than-significant direct effect on the environment may nonetheless make a considerable contribution to a cumulative effect. The decision in *Communities for a Better Environment, et al v. California Resources Agency* (2002) 103 Cal.App.4th 98 put the approach to evaluating a project's contribution to a cumulative impact succinctly: "In the end, the greater the existing environmental problems are, the lower the threshold should be for treating a project's contribution to cumulative impacts as significant."

AB 32 states, in part, that "Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change is clearly a significant cumulative impact. The CEC states that increases in GHG emissions are linked to increased VMT. The Commission reports that VMT increased by nearly 3 percent annually in California between the years 1975 and 2004, while population grew at a rate of approximately 2 percent during that same period. (California Energy Commission 2007). This increase in VMT, in excess of the rate of population growth, is one indicator of the severity of the cumulative impact.

In addition to the impact of GHG on the environment resulting from future development in Modesto, the impact of global climate change on Modesto must be disclosed. Recognizing that climate change is an issue of global importance, climate change could impact the natural and human environment in California in the following ways, among others:

- rising sea levels along the California coastline, particularly in San Francisco and the San Joaquin Delta due to ocean expansion may increase the risk of inundation;
- extreme-heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent would increase the potential for ozone production, increase summer energy demand, stress water supplies, and increase health risks;
- an increase in heat-related human deaths, infectious diseases and a higher risk of respiratory problems caused by deteriorating air quality;
- reduced snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies;
- potential increase in the severity of winter storms, affecting peak stream flows and flooding that may increase the risk of flooding;
- changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield; and
- changes in distribution of plant and wildlife species due to changes in temperature, competition from colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

All of these, with the exception of rising sea level, could potentially affect Modesto.

Clearly, global climate change is a serious environmental problem. Increased energy use and VMT from future development under the amended UAGP will contribute GHG emissions that add to the existing problem. As part of the traffic analysis prepared for this Master EIR, VMT in the planning area is estimated to reach 12,447,000 by 2025. This represents an 82 percent increase over the estimated 2005 VMT. Therefore, future development under the UAGP will make a cumulatively considerable contribution to global climate change. The City has identified a number of mitigation measures and general plan policies that will reduce the levels of GHG emissions that might otherwise result from the projected level of growth; however, these will not mitigate the UAGP's contribution below a level of significance.

Because the state has not adopted its full slate of regulations intended to reduce GHG emissions to 1990 levels, there is no guidepost by which to measure whether local general plans would interfere with the ability to meet that objective. However, the level of GHG emissions reduction needed (73 million metric tons or 15 percent below the 2007 emissions level) in the face of an anticipated 17 percent increase in California's population by 2020 establishes a formidable target. The extent of reductions required will necessitate utilizing local land use regulations to vehicle GHG emissions by improving energy conservation and reducing VMT through sensitive urban design and planning. (California Department of Finance 2007a, California Department of Finance 2007b, California Energy Commission 2007.)

6. Impacts for Which There Is Insufficient Information to Support a Full Analysis

There is insufficient information on the means to avoid or moderate global climate change for full analysis. For example, future state regulations that will be enacted to reduce GHG emissions to 1990 levels are unknown, so the City cannot know at this time what additional local measures may be necessary in order to assist in meeting that objective.

C. MEASURES ADOPTED TO MINIMIZE SIGNIFICANT EFFECTS

The following information is provided in accordance with Section 15126.4 of the State CEQA Guidelines.

1. Measures Which Mitigate Direct Impacts

Because of the global nature of climate change, the planned development of Modesto under the UAGP will not, by itself, result in a significant direct impact on global climate. In other words, future development under the UAGP will not cause climate change. As a result, no mitigation is required. However, the UAGP would result in emissions that contribute to the cumulative climate change impact, as described below.

2. Measures Which Mitigate Cumulative Impacts

The policies of the Modesto UAGP, listed above as CL-3 through CL-26, would reduce future development's production of GHG by, among other things, the use of shade trees to reduce the need for air conditioning and the heat island effect of pavement; somewhat reduced residential and business emissions as a result of the most current energy-efficient building standards; voluntary incentive-based programs for energy providers and developers; the use of solar energy systems rather than fossil fuel derived energy for residential, agricultural, parks, public buildings, and business purposes; the use of passive solar design to reduce the need for winter heating and summer cooling; and the use of small wind energy systems which produce electricity without relying on fossil fuel power plants.

3. Alternatives to the Proposed Project.

The following information is provided in accordance with Section 15126.6 of the State CEQA Guidelines.

Both Alternative 1 (No Project) and Alternative 2 (No Changes to Street Designations) would contribute GHG emissions and make a significant cumulative contribution to global climate change. Alternative 1 would constitute "business as usual," with future growth to 2025 similar to that proposed under the project. The level of development would be similar to both Alternative 2 and the proposed project (amended UAGP). Alternative 2 would include the same policies, as well as the mitigation measures included with the proposed project, minus certain road changes. Because the road changes proposed as part of the project are likely to increase VMT by reducing

congestion and inducing additional travel, Alternative 2 would be expected to have a smaller impact than the proposed project because it would not include those road changes.

D. MONITORING THESE MITIGATION MEASURES

The following information is provided in accordance with Public Resources Code (PRC) Section 21081.6.

The measures identified above have been incorporated into the UAGP and will be implemented by that plan. Therefore, no mitigation measures are required in the Master EIR. Monitoring will occur through staff reports on general plan implementation.

E. EVALUATING SUBSEQUENT PROJECTS

The following information will be used to determine whether subsequent projects conform to the Master EIR, as outlined in PRC Section 21157.1(c).

Anticipated future projects, as presented in Chapter II, are within the scope of analysis for the effects on climate change as long as the following circumstances have not changed:

The lead agency for subsequent projects shall be the City of Modesto or any responsible agency identified in the Master EIR.

1. The following City policies continue to be in force to reduce, avoid or mitigate impacts: CL-3 through CL-27.
2. The analysis of this Master EIR assumed that the preceding City policies, which reduce, avoid or mitigate environmental effects, would continue to be in effect and therefore would be applied to subsequent projects where appropriate. The policy reference numbers are listed, the full text of these policies is found in Section 4 above, *Existing Policies Applying to the Study Area*.
3. No additional significant effect on climate change is identified within the planning area.

F. KEEPING THE MASTER ENVIRONMENTAL IMPACT REPORT CURRENT FOR THIS TOPIC

As authorized by PRC Section 21166, the analysis contained in this section is current as long as the following circumstances have not occurred.

1. The planning area population increases more rapidly than projected by the UAGP, indicating that the planning area will be insufficient to accommodate expected growth in 2025.
2. The planning area is expanded beyond its boundaries on the date of certification of this Master EIR.
3. No new information, as defined in State CEQA Guidelines Section 15162(a)(3), becomes available pertaining to GHG that would require major revisions in the Master EIR by indicating that there would be an additional significant effect on the environment and that new or additional mitigation measures or alternatives may be required.

Chapter VI

Growth-Inducing Impacts

A. PURPOSE

Public Resources Code (PRC) Section 21100 requires an environmental impact report (EIR) to include a detailed statement of the growth-inducing impacts of the project. Section 15126.2(d) of the State CEQA (California Environmental Quality Act) Guidelines requires this statement to include a discussion of the ways in which the proposed project could foster economic or population growth or the construction of additional housing in the surrounding environment. This statement is also to address actions that, either individually or cumulatively, would remove obstacles to population growth and otherwise encourage activities that could significantly affect the environment.

B. MODESTO URBAN AREA GENERAL PLAN

California Planning Law requires each city to adopt a comprehensive, long-term general plan for its physical development (Government Code Section 65300). Pursuant to Government Code Section 65302, the *City of Modesto Urban Area General Plan* (UAGP) is a statement of development policies that will guide the City of Modesto's (City's) land use decision-making to 2025.

As is usually the case in a long-term land use plan, future development under the UAGP will result in significant growth beyond existing levels. For example, the City's population was 188,856 in 2000 according to the U.S. Census of that year and had grown to 209,174 as of January 1, 2007 (State of California, Department of Finance 2007a). The current incorporated area of the City is approximately 23,454 acres; the UAGP anticipates an urban area of 42,700 acres. The ultimate population projected to occur within the UAGP boundary is 428,300, which represents the reasonable estimated population, given existing conditions. This level is not, however, expected to be reached during the UAGP's time horizon. Rather, it would be reached at some undetermined time after 2025/2030.

The UAGP presents a vision of future development for the community and a planning horizon through 2025, with a level of development and rate of growth less than the 2025 population projection of approximately 440,000 residents made by the Association of Bay Area Governments (Association of Bay Area Governments 2003). The difference is the result of the City's more conservative approach of estimating population on the basis of infrastructure capacity, rather than simply by estimating build-out by UAGP land-use designations.

By definition, a general plan is intended to accommodate future growth in a controlled manner. This accommodation is reflected in the general plan contents mandated under Government Code Section 65302. Of the seven mandatory elements, three directly relate to growth: the Land-Use Element establishes the pattern of future land uses; the Circulation Element plans the future road system, correlated to land uses; and the Housing Element identifies the means by which the City will meet its fair share of projected regional housing needs (and, by implication, population growth) for all income groups.

The UAGP is by definition growth-inducing to the extent that it plans for and accommodates projected population growth and economic development. Specific growth-inducing activities include the following.

1. Designation of Land for Future Residential, Commercial, and Industrial Development

This designation simplifies the process of obtaining approvals to develop land for urban uses. Development within the Planned Urbanizing Area will require future approvals of Community Plans (and related specific plans) before development may occur. With the exceptions of the Dry Creek, Tuolumne River, and Stanislaus River Comprehensive Planning Districts (which are intended for open space uses), the UAGP sets the tenor for future urban expansion into the Planned Urbanizing Area.

The UAGP also provides for infill development in the Baseline Developed and Redevelopment Areas. In general, infill development is considered less growth-inducing than is the extension of urban infrastructure to previously unserved areas. The UAGP will provide for infill of currently vacant areas of the Baseline Developed Area, as well as intensification of development within the Redevelopment Area. Infill may marginally reduce the growth-inducing impact of the UAGP, but the fact remains that most new development within the City is projected to occur in the Planned Urbanizing Area.

2. Improvements to and Extensions of the City's Wastewater Treatment System

Along with adoption of the Wastewater Master Plan and Measure M, the UAGP establishes City policies encouraging the eventual expansion of the wastewater treatment plants and extension of sewer mains to serve the Planned Urbanizing Area. This expansion will enable development of this area at urban densities.

3. Extension of Police and Fire Services to Annexed Lands

The UAGP policies provide for the maintenance of police and fire service at current levels as the City expands. This maintained level will enable development of the Planned Urbanizing Area at urban densities.

4. Extension of Water Service to Lands within the Urban Area

The UAGP policies provide for the eventual extension of water service to the Planned Urbanizing Area. This extension will enable development of the Planned Urbanizing Area at urban densities.

5. Road Improvements

The UAGP identifies future expressways, arterials, and collector roads that will serve the Planned Urbanizing Area. This circulation system will form the framework within which future local streets will be built. The road system will provide vehicle access necessary to develop the area at urban densities.

6. Multiplier Effect

The UAGP will also induce indirect growth through a *multiplier effect*. A multiplier effect describes the web of impacts resulting from the economic relationships between the City and the surrounding region. Increased housing and job opportunities in Modesto may have a multiplier effect on other communities in the region, whereby the City provides housing that may support employment centers outside Modesto and provides jobs for those who live outside Modesto. This multiplier effect can manifest itself in growth as well as in associated traffic. The extent to which the multiplier effect induces housing and job growth beyond Modesto's planning area, where that growth may be located, and the intensity of that growth, cannot be quantified at this time.

C. GROWTH-INDUCING IMPACT MITIGATION

A general plan is by definition growth-inducing. In Modesto, this effect is moderated to some extent by the Community Growth Strategy, Community Development, and Community Services and Facilities policies of the UAGP (Sections II.C, III.D, V.C, and V.D). Development within each of these districts will be timed to coincide with the availability of sewer service and will be required to comply with the individual comprehensive plans that will be adopted for each district. In addition, development within these areas will be required to support the cost of new infrastructure. As a result, future growth consistent with the UAGP will occur in a measured way, at urban densities, with sufficient infrastructure to serve that growth. While not halting growth, this strategy ensures that growth does not occur in a manner that is wasteful of resources (including agricultural land) or that stretches infrastructure beyond comfortable levels.

The following UAGP policies reduce the impacts of growth:

II.C.1 Urban Area Growth Policy Review

A review of the growth trends in the Modesto Urban Area should be held on a periodic basis. This periodic review should provide for the selection of potential urban areas to be served with urban infrastructure during the ensuing five years. This review should be focused on the information presented in Section 2, 3, and 4, below, and on the following policies:

- II.C.1[a] In general, maintenance of a five-year supply of available developable land served with urban infrastructure is desirable.
- II.C.1[b] Urban development should be kept as contiguous as possible in order to avoid premature urbanization of valuable farmland, foster resident convenience, and provide for economy in City services.
- II.C.1[c] Residential growth and development within the Modesto Urban Area General Plan shall take place only following annexation to the City.
- II.C.1[d] Urban growth should be directed, as long as economically feasible, to areas currently served with City services.
- II.C.1[e] The Master EIR should be updated when necessary (see Section 3, below).

Additional mitigating policies in the UAGP include the following:

- III.D.1[e] Each Specific Plan shall be accompanied by a long-range financing strategy which provides reasonable estimates of the costs of on- and off-site infrastructure to support the proposed development pattern. The strategy should generally address public

facility funding, including schools, for any development project which serves to implement the subject Specific Plan. If new public facilities are required which will also serve the broader community, the Specific Plan should include options for broad-based funding mechanisms.

- III.D.1[k] The Specific Plan for each Comprehensive Planning District shall address the policies for the relevant Growth Strategy Designation (Baseline Developed Area or Planned Urbanizing Area) presented in Chapters II, III, IV, V, VI, and VII and storm water collection, retention, and discharge. The developer must pay these costs. Building permits (residential construction and/or certificates of occupancy (commercial construction) will not be issued until storm water facilities are installed and approved.
- III.D.1[l] Each Specific Plan or Planning District shall address the need to provide sanitary sewer service, using the Sanitary Sewer Diagram presented in Chapter V.
- V.C.4[b] The City of Modesto shall coordinate land development projects with the expansion of water treatment and supply facilities.
- V.D.4[b] The City of Modesto will require each new development project to be served with public sanitary sewers. Utilities located in private streets shall be part of the public sewerage system and shall be connected to a sewer lateral.
- V.D.4[c] The City of Modesto will coordinate land development proposals with the expansion of wastewater facilities.

This approach ensures that development within the Planned Urbanizing Area will occur as demand arises and services are available, and that future roads and utility extensions will be sized appropriately to serve planned development. This will not eliminate the growth-inducing impacts of the UAGP, but will moderate the rate at which those impacts occur.

Chapter VII

Irreversible Impacts

A. PURPOSE

Public Resources Code (PRC) Section 21100(b) requires the master environmental impact report (Master EIR) to identify any significant effects of the project that would be irreversible if the project were implemented. These are essentially the same as the significant impacts that cannot be mitigated.

Section 15126.2(c) of the California Environmental Quality Act (CEQA) Guidelines offers examples of what may constitute irreversible environmental changes. These include the use of nonrenewable resources and irretrievable commitments of resources.

B. IRREVERSIBLE IMPACTS

By statute, the *City of Modesto Urban Area General Plan* (UAGP) is to comprise “a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency’s judgment bears relation to its planning.” (Government Code Section 65300) The UAGP would enable Modesto to grow over time from its January 1, 2007, population of 209,174 residents to an ultimate population within the Modesto planning area of 428,300 at some time after 2025, beyond the horizon of this plan. The development of homes, businesses, and industry as provided under the UAGP would commit or consume nonrenewable resources—such as fossil fuels to serve transportation and manufacturing needs, agricultural soil, water supply, clean air, and wildlife habitat—and would increase solid waste.

Fossil fuels are used in autos, trucks, and trains. Petroleum also is used in plastics, paving, synthetic dyes, fabric, and other building materials of the built environment. Natural gas is used for heating, for fuel, and for generating electricity. The potential consumption of energy resources by development permitted in the project area under the UAGP can be mitigated at least partially by conservation measures required by the City of Modesto (City), as well as by energy production encouraged by alternate sources, such as wind, solar, and cogeneration facilities. Despite conservation, increases in population, vehicle miles traveled, and economic activity would lead to increases in the amount of fossil fuels and energy that are consumed.

The Modesto area contains very high quality agricultural soils. Urban development would overlay these soils, and, although they would not actually be destroyed, they no longer would be available for agricultural use. Under the assumption that radical changes in lifestyle or economic conditions would not occur to halt this conversion, this loss would be irreversible.

As a result of increased population, the project would contribute to a cumulative loss of natural water resources in the San Joaquin Valley and contribute to the need to identify additional water resources. This impact would be at least partially mitigated through conservation measures required by the City, including the use of reclaimed water, water conserving devices, and drought-tolerant landscaping.

Air quality in the project area and the San Joaquin Valley would be degraded as a result of the growth identified in the UAGP, in concert with growth throughout the valley. The amount of pollutant emissions and particulate levels would increase in Modesto chiefly through motor vehicle-generated emissions and grading activities, but pollutants carried in from elsewhere by prevailing winds would continue to contribute to air pollution problems. In the long term, these impacts are to be mitigated by state and federal Clean Air Act standards and air pollution control district regulations, as well as policies in the UAGP. However, cleaner air is decades away at best, considering the current level of pollution and status of attainment plans.

Increased population and employment would result in an increase in solid waste. Although solid waste is not generally considered a nonrenewable resource, it is at least partly made up of the byproducts of nonrenewable resources, such as steel, aluminum, and plastics. California law mandates the reduction of solid waste volumes through source reduction and recycling. Modesto is meeting the state-mandated goal of reducing its solid waste stream to landfills by 50 percent from 1989 levels. To the extent that some solid waste was not recycled, nonrenewable resources would be lost.

Chapter VIII

Alternatives Analysis

A. PURPOSE

Public Resources Code (PRC) Section 21100(b) requires that the master environmental impact report (Master EIR) discuss a reasonable range of feasible alternatives to the proposed project, which meet most or all of its objectives. Alternatives must be capable of avoiding or substantially lessening one or more of the significant effects of the project. Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines further provides that an EIR must evaluate the comparative merits of the alternatives. Alternatives need not be examined at the same level of detail as the project.

The City of Modesto (City) is responsible for selecting a reasonable range of feasible alternatives to the project. The Master EIR must describe the rationale for selecting the range of alternatives to be discussed and identify any other alternatives that were considered by the City but were rejected as infeasible (State CEQA Guidelines Section 15126.6[c]). This Master EIR examines the potential environmental impacts arising from the proposed maintenance update to the *City of Modesto Urban Area General Plan* (UAGP). The project, the UAGP update, is largely limited to incorporating existing City policies, addressing new state laws, and revising selected road designations, as well as adding some administrative policies. No change is being made to the land use map of the UAGP. In keeping with the Modesto City Council's intention to undertake a comprehensive update of the UAGP in the future, policy changes at this time are primarily administrative in nature, rather than substantive.

The range of alternatives must include the "No-Project Alternative." The purpose of analyzing this alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving it. (State CEQA Guidelines Section 15126.6[e].)

B. SELECTED ALTERNATIVES

1. Alternative 1: No-Project Alternative

The No-Project Alternative is the continuation of the 1995 UAGP, as amended, into the future. Thus, the impacts of the proposed UAGP amendment would be compared with the impacts that would occur with buildout of Modesto as envisioned in the existing 1995 UAGP. The No-Project Alternative would not include any of the new policies being added to the UAGP with the current update. The impacts of the 1995 UAGP are described in the 2003 Master EIR prepared for that plan, as modified by the Master EIR for the *Wastewater Master Plan* and the focused EIRs for the Fairview Village (1995), Empire North Unit 1 (1997), and Kiernan Business Park (1997) Specific Plans.

Significant Impacts of Alternative 1

The significant impacts of the No-Project Alternative are summarized below.

Traffic: According to the traffic analysis in the 2003 Master EIR, growth would cause the service levels on 38 to 40 segments of the City's arterial traffic network to operate at worse than level of service (LOS) D. This is a significant, unavoidable impact. The congestion analysis prepared for the 2003 Master EIR is not directly comparable to the analysis prepared for the updated Master EIR. Specifically, the StanCOG traffic analysis model has been revised from the traffic model used to evaluate the 2003 Master EIR. Nonetheless, the impact of the future growth projected under the No-Project Alternative is expected to be significant and unavoidable.

Degradation of Air Quality: Growth under the No-Project Alternative would result in the generation of ozone precursors and dust during construction and a net increase in emissions of ambient carbon monoxide (CO), ozone precursors, and particulate matter 10 microns or less in diameter (PM10) from area and mobile sources. Day-to-day activities in the larger city envisioned in the 1995 UAGP would result in substantial increases in criteria emissions. These impacts are significant and unavoidable.

Generation of Noise: Growth, including new commercial and residential development and planned road expansions under the No-Project Alternative, would cause increased noise levels in the vicinity of construction sites along the existing and proposed road network, localized impacts from new stationary noise sources, and the introduction of land uses into a high-noise environment. Projected growth under the 1995 UAGP would result in increased noise in portions of Modesto. This would be particularly noticeable as the Planned Urbanizing Area develops. These impacts are significant and unavoidable.

Loss of Productive Agricultural Lands: Growth under the No-Project Alternative would result in the conversion of agricultural land within the sphere of influence to urban uses. Major portions of the Planned Urbanizing Area identified in the 1995 UAGP would convert from farm and grazing lands to urban development within the CPDs. This is a significant, unavoidable impact.

Increased Demand for Long-Term Water Supplies: Additional distribution and storage facilities would be needed to meet anticipated demand under the No-Project Alternative. Planned development would not exceed the potable water supply. However, as discussed in the 2003 Master EIR, Modesto's demands would contribute to the demand resulting from regional development. This regional demand is expected to exceed the supply within the underlying aquifer. A significant, unavoidable cumulative impact would result.

Increased Demand for Sanitary Sewer Services: Development within the CPDs under the No-Project Alternative would exceed currently available capacity. Necessary additional sewage treatment plant capacity, sewer lines, pump stations, and treatment capacity would be provided pursuant to the Wastewater Collection System (WWCS) master plan, so direct impacts would be less than significant. However, as described in the 2003 Master EIR, construction activities and facility operations related to the WWCS itself would result in indirect impacts on traffic and circulation and on air quality that would be significant and unavoidable.

Loss of Sensitive Wildlife and Plant Habitat: Growth under the No-Project Alternative, particularly in the Planned Urbanizing Area, would contribute to the significant and unavoidable cumulative loss of habitat that is occurring within the region. Although the 1995 UAGP contains provisions for protecting lands along Dry Creek and the Tuolumne River

through restrictions under the respective Comprehensive Planning Districts (CPDs), habitat land nonetheless would be converted to urban uses outside those CPDs and Alternative 1 would have somewhat more severe impacts than described above because it does not include updated protective policies proposed as a part of the proposed project.

Disturbance of Archaeological or Historical Sites: Prehistoric resources may be uncovered during excavation for construction. Construction activities resulting from the growth envisioned under the No-Project Alternative may adversely affect historical structures and resources. These may include historical structures removed as a result of road widening or new construction, as well as unknown archaeological resources that may be discovered during development. These impacts would be significant.

Increased Demand for Storm Drainage: Future development under the No-Project Alternative would add impervious surfaces that create additional runoff requiring new and expanded storm drainage systems. These impacts largely would be avoided by current UAGP policies in the Planned Urbanizing Area; thus, the impact of the No-Project Alternative would be less than significant there. However, increased runoff within the Baseline Developed Area resulting from additional development may increase the volume of drainage that is channeled to rock wells. This could result in a significant impact on stormwater drainage facilities in the Baseline Developed Area.

Flooding, and Water Quality: Under the No-Project Alternative, future development within the flood zone largely would be avoided. Increased runoff and siltation resulting from new construction, as well as urban runoff pollution, would be controlled by existing City regulations and the required best management practices (BMPs). Conversion of agricultural lands to urban development may affect groundwater recharge adversely absent a cooperative effort between the City and the irrigation districts. These impacts largely would be avoided by 1995 UAGP policies and the regional groundwater management efforts going on outside the general plan process. Therefore, the impacts would be less than significant.

Increased Demand for Fire Services: The No-Project Alternative envisions growth by annexation under the 1995 UAGP into areas within the City's sphere of influence that currently are served by independent fire districts. De-annexation of portions of these districts in order to annex the territory to the City may lead to financial insolvency of the districts. In that case, fire protection in areas outside Modesto would be lost, and the risk of fire would be increased greatly. This is a significant and unavoidable impact under the No-Project Alternative.

Generation of Solid Waste: Future development under the No-Project Alternative would generate substantial amounts of solid waste that would require additional landfill capacity. Adequate future capacity is reasonably foreseeable based on Stanislaus County (County) projections. The impact of the No-Project Alternative would be less than significant.

Energy: Future development within the Planned Urbanizing Area pursuant to the No-Project Alternative would draw a substantial amount of energy, despite the provisions of the Title 24 California Code of Regulations energy standards. In addition, this development would contribute to increased demand statewide. These are significant and unavoidable impacts.

Effects on Visual Resources: Future development in the Planned Urbanizing Area would introduce new sources of light and glare where lands that are currently in agricultural use are converted to urban use. This is a significant and unavoidable impact.

Climate Change: Future development pursuant to the No-Project Alternative would result in a significant contribution to the greenhouse gas emissions that result in the cumulative impact of global climate change. The existing 1995 UAGP has a number of energy conservation policies in Section VII-I.1 that would make a marginal reduction in greenhouse gas emissions. However, these do not eliminate the contribution.

2. Alternative 2: No Changes to Street Designations

The proposed UAGP update includes revisions to the currently planned configurations of six streets, as described below. Under Alternative 2, the City would not revise the designations of these streets, and they eventually would be constructed as currently planned. The text below describes the revisions to street configurations proposed by the UAGP update.

- **Dale Road**—Change from a minor arterial to a principal arterial in the entire Modesto planning area and a change from four lanes, with the possibility of bike lanes, to six lanes with no bike lanes.
- **Bangs Avenue**—Change from a minor collector to a major collector with a bike path from Dale Road to Tully Road and a change from two travel lanes to four travel lanes with bike lanes.
- **Claratina Expressway**—Revision of the alignment and change from a four-lane expressway to a six-lane principal arterial east of Oakdale Road to Roselle Avenue, which allows for four travel lanes and Class I bicycle facilities.
- **Carpenter Road**—Change from a six-lane expressway to a principal arterial with bike lanes, from State Route (SR) 132 to Whitmore Avenue, and a change from six lanes without bike lanes to six lanes with bike lanes.
- **Claus Road**—Moving the alignment of Claus Road from Floyd Avenue to Claratina Avenue west of the Burlington Northern Santa Fe Railroad tracks.
- **Sylvan Avenue**—Change from principal arterial to minor arterial with Class II bicycle facilities from Oakdale Road to Roselle Avenue.

Under Alternative 2, none of the above revisions would occur, and streets would retain the following designations:

- **Dale Road**—minor arterial;
- **Bangs Avenue**—minor collector;
- **Claratina Expressway**—alignment unchanged, four-lane expressway;
- **Carpenter Road**—six-lane expressway;
- **Claus Road**—alignment unchanged; and
- **Sylvan Avenue**—principal arterial.

Neither Alternative 2 nor the proposed UAGP update proposes substantive changes in the current plan of land use patterns, so traffic generation would be similar in both these scenarios. Alternative 2 would be expected to result in lower vehicle miles traveled (VMT) than the proposed UAGP update because increases in roadway capacity tend to induce travel. Drivers tend to select the least congested routes to their destinations. As a result, new capacity tends to be re-filled over time as drivers change their prior routes to take advantage of the perceived lower congestion. (Ewing et al. 2007.) Therefore, an increase in roadway capacity would be expected to increase VMT somewhat, all things being equal.

Alternative 2 includes the same mitigating policies as identified for the proposed UAGP update.

Significant Impacts of Alternative 2

Alternative 2 would meet the objective of providing adequate circulation for future development. It would cost less to construct than the proposed UAGP update's road network and would result in a lesser level of change to adjoining properties than the proposed UAGP update. Unlike the proposed UAGP update, Alternative 2 would not alter the designation of Carpenter Road to a principal arterial with bike lanes, thus avoiding the need to purchase adjoining frontage to create new access. Otherwise, the Alternative 2 impacts are similar to those of the proposed UAGP update. The following discussion presents impacts that would differ from those of the proposed project.

Traffic: Alternative 2 would have the same circulation improvements and therefore traffic levels similar to, if not the same as, those described for Alternative 1.

Degradation of Air Quality: Alternative 2 incorporates a number of policies intended to reduce air emissions and reduce energy use that results in air emissions. These are the policies contained in Sections VII-H.2 (air quality) and VII-I.1 of the proposed UAGP update. Nonetheless, increased traffic and VMT associated with growth would result in significant and unavoidable air quality impacts under Alternative 2.

Generation of Noise: Growth under Alternative 2 would cause increased noise levels in the vicinity of construction sites along the existing and proposed road network, localized impacts from new stationary noise sources, and the introduction of land uses into a high-noise environment. Alternative 2 would include the same mitigating policies found in the proposed UAGP update in Sections VII-G.3 and VII-G.4. However, it nonetheless would result in a significant, unavoidable noise impact.

Loss of Productive Agricultural Lands: Growth under Alternative 2 would result in the conversion of agricultural land to urban uses. This is a significant, unavoidable impact.

Increased Demand for Sanitary Sewer Services: Future development under Alternative 2 would exceed currently available capacity. Additional sewage treatment plant capacity, sewer lines, pump stations, and treatment capacity would be needed. Upon construction of this future infrastructure, the direct effects of Alternative 2 would be less than significant. Indirect impacts on traffic and circulation and on air quality would result from the construction and operations of future sewage treatment facilities. These indirect impacts of Alternative 2 are significant and unavoidable.

Loss of Sensitive Wildlife and Plant Habitat: Growth under Alternative 2, particularly in the Planned Urbanizing Area, would contribute to the significant and unavoidable cumulative loss of habitat that is occurring within the region. Policies enacted under Alternative 2 would avoid direct significant effects on habitat.

Disturbance of Archaeological or Historical Sites: Prehistoric resources may be uncovered during excavation for construction. Construction activities may affect historical structures and resources adversely. Based on the proposed policies, Alternative 2 would avoid significant effects, except where a historically significant building may be demolished. This particular circumstance would be a significant, unavoidable impact.

Increased Demand for Storm Drainage: Future development would add impervious surfaces that create additional runoff requiring new and expanded storm drainage systems. The policies of Alternative 2 would avoid a significant effect in the Planned Urbanizing Area. This is a significant, unavoidable impact in the Baseline Developed Area where drainage capacity is limited.

Flooding, and Water Quality: Future development under Alternative 2, subject to its policies, would avoid flood zones. Increased runoff and siltation could occur as a result of new construction, as could urban runoff pollution, but would be controlled by City policies, regulations, and required BMPs. Conversion of agricultural lands under Alternative 2 may affect groundwater recharge by increasing impermeable surfaces. These impacts would be largely avoided by UAGP policies under Alternative 2 and groundwater management activities being undertaken by the City and other affected agencies in the area. Increased runoff within the Baseline Developed Area is a significant, unavoidable impact where drainage would be channeled to rock wells.

Increased Demand for Fire Services: Alternative 2 would result in the annexation and development of areas within the City's sphere of influence that currently are served by independent fire districts. De-annexation of portions of these districts in order to annex the territory to the City may lead to financial insolvency of the districts. In that case, fire protection in areas outside the City would be lost, and the risk of fire would be increased greatly. Policies included in Alternative 2 would reduce this to a less-than-significant impact.

Generation of Solid Waste: Future development under Alternative 2 would generate substantial amounts of solid waste that would require additional landfill capacity. Adequate future capacity is reasonably foreseeable based on County projections. This is a less-than-significant impact.

Energy: Future development within the Planned Urbanizing Area pursuant to Alternative 2 would draw a substantial amount of energy, despite proposed policies E-6 through E-45. In addition, this development would contribute to increased energy demand statewide. These are significant and unavoidable impacts.

Effects on Visual Resources: Future development in the Planned Urbanizing Area would introduce new sources of light and glare where lands that are currently in agricultural use are converted to urban use. Alternative 2 includes policy VR-3, which would reduce this impact to some extent. However, this remains a significant and unavoidable impact.

Climate Change: Future development under Alternative 2 would result in a significant contribution to the cumulative impact of global climate change. The proposed energy conservation policies in Section VII-I and climate change policies in Section VII-H.2 would help reduce greenhouse gas emissions in comparison to the No-Project Alternative. However, these do not eliminate the contribution, and the impact is significant and unavoidable.

C. COMPARISON BETWEEN THE PROJECT AND THE ALTERNATIVES

As required per State CEQA Guidelines Section 15126.6(e), the impacts of the alternatives are compared with the impacts of the proposed UAGP update. Table VIII-1 identifies the common impacts and their level of significance under each of the alternatives. “SU” means significant and unavoidable; “LTS” means less than significant. The table summarizes the impacts of the proposed UAGP update and the two alternatives and does not differentiate between direct and cumulative impacts.

Where the impact of either the project or one of the alternatives is less than that of the other two (even if the impact is otherwise significant and unavoidable), that impact is shown in bold. This enables the reader to see the levels of impacts by project and alternative, as well as their relative impact in comparison to one another.

Table VIII-1. Impact Comparison between the Project and Alternatives

Impact Topic	Proposed UAGP Update	Alternative 1—No-Project Alternative	Alternative 2—No Changes to Street Designations
Traffic and circulation	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable Alternative 2 (would have greater transportation impacts along those roads than the proposed project would. However, it would have less of an impact than Alternative 1 because it would include other new traffic and transportation policies that are expected to increase transit ridership, improve flow through the use of roundabouts, encourage bicycle use and walking, and provide other benefits over current policies.
Degradation of air quality	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable Lower VMT and new air quality policies would result in lesser air quality impacts
Generation of noise	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable New policies and narrower arterials would result in lesser traffic noise impacts
Effects on agricultural lands	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable

Impact Topic	Proposed UAGP Update	Alternative 1—No-Project Alternative	Alternative 2—No Changes to Street Designations
Increased demand for long-term water supplies	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Increased demand for sanitary sewer services	Less than significant	Less than significant	Less than significant
Loss of sensitive wildlife and plant habitat	Significant and unavoidable	Significant and unavoidable Alternative 1 would have somewhat more severe impacts than described above because it does not include updated protective policies proposed as a part of the proposed project.	Significant and unavoidable
Disturbance of archeological/historical sites	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable New policies would protect more resources, and narrower arterials would have less potential to adversely affect historic structures
Increased demand for storm drainage	Significant and unavoidable	Significant and unavoidable Alternative 1 would have greater impacts on drainage than the proposed project in that it would not contain the protective policies proposed with the UAGP amendment.	Significant and unavoidable
Flooding and water quality	Less than significant	Less than significant	Less than significant
Increased demand for parks and open space	Less than significant	Less than significant	Less than significant
Increased demand for schools	Less than significant	Less than significant	Less than significant
Increased demand for police services	Less than significant	Less than significant	Less than significant
Increased demand for fire services	Less than significant	Significant and unavoidable	Less than significant
Generation of solid waste	Less than significant	Less than significant	Less than significant
Generation of hazardous materials	Less than significant	Less than significant	Less than significant
Geology, soils, and mineral resources	Less than significant	Less than significant	Less than significant

Impact Topic	Proposed UAGP Update	Alternative 1—No-Project Alternative	Alternative 2—No Changes to Street Designations
Energy	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Effects on visual resources	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable
Land use and planning	Less than significant	Less than significant	Less than significant
Climate change	Significant and unavoidable	Significant and unavoidable	Significant and unavoidable Because the road changes proposed as part of the project are likely to increase VMT by reducing congestion and inducing additional travel, Alternative 2 would be expected to have a smaller impact than the proposed project because it would not include those road changes.

D. ALTERNATIVES CONSIDERED AND REJECTED

1. Changes in Land Use

As an alternative, the City considered revising the land use pattern established in the UAGP. This would conflict with the key objective of making only the revisions necessary to update the UAGP relative to local and state plans and regulations that have been adopted since 1995. A comprehensive update of the UAGP will be undertaken in the future.

2. Greenhouse Gas Reduction Program

The proposed project has been undertaken at this time in large part because of the need to update the Master EIR so that it can continue to be used citywide. The City has taken this opportunity to update references to state laws, incorporate adopted policies, and add some administrative policies to the UAGP. As such, the proposed project is not much more significant than an update to the Master EIR, which must be undertaken periodically. Attempting to create major new policies affecting the emission of greenhouse gases is appropriate for a comprehensive update to the UAGP, which the City is not undertaking at this time. Consequently, preparing major new policies of this nature conflicts with the objective of making only the technical and administrative revisions necessary to extend the life of the UAGP. Because the City is expected to undertake a comprehensive UAGP update in the next few years, it would be more appropriate to consider more extensive changes to the UAGP relative to state goals for greenhouse gas emissions reduction as part of that update. Furthermore, as discussed in the climate change section of this Master EIR, by the time the comprehensive UAGP update is under way, it is anticipated that there will be more guidance on this issue from the state.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

State CEQA Guidelines Section 15126.6(e) requires the “environmentally superior” alternative to be identified in the Master EIR. Where the No-Project Alternative is environmentally superior, the environmentally superior alternative is to be identified from among the other alternatives.

On this basis, Alternative 2 is the environmentally superior alternative. Its policies enable it to avoid significant effects related to fire protection and prehistoric resources and to have a lesser effect on climate change than would the No-Project Alternative.

Chapter IX

Comments on Draft Master EIR and Responses to Comments

As described in Chapter 1, the draft MEIR was circulated for review and comment by the public and other interested parties, by agencies that commented on the initial study and notice of preparation of the MEIR, and by surrounding jurisdictions. Comment letters on the draft MEIR were received from individuals and agencies. The letters received are listed in Table IX-1, and copies of the letters, with all individual comments indicated, are provided in this chapter.

As stated in State CEQA Guidelines Sections 15088(a) and 15088(b), comments that raise environmental issues must be provided with responses. This chapter contains the City's responses to comments received on the draft MEIR. Reasoned, factual responses have been provided for all comments received, focusing specifically on the environmental issues raised. In general, the responses provide explanation or amplification of information contained in the draft MEIR. Comments that are outside the scope of CEQA review will be forwarded to the decision-makers for consideration as part of the project approval process. These comments are answered with a general response. A master response concerning fire protection is also provided to address a number of comments covering the same or similar issues.

The comment letters and comments within each letter are numbered consecutively. For example, Letter 1 is the first letter, and Comment 1-1 is the first comment in Letter 1.

Table IX-1. Comments Received on Draft Master EIR

Letter	Date Received	Commenter	Address
1	April 10, 2008	David Warner, San Joaquin Valley Air Pollution Control District	4800 Enterprise Way Modesto, CA 95356-8718
2	April 11, 2008	Kathleen A. Dadey, U.S. Army Corps of Engineers	1325 J Street Sacramento, CA 95814-2922
3	April 26, 2008	Daniel Kevin, California Public Utilities Commission	505 Van Ness Avenue San Francisco, CA 94102-3298
4	April 26, 2008	Stephen Mayotte, Stanislaus Consolidated Fire Protection District	3324 Topeka Street Riverbank, CA 95367
5	April 28, 2008	Tom Dumas, California Department of Transportation	1976 East Charter Way Stockton, CA 95205
6	May 6, 2008	Ed Padilla	2437 Manor Oak Drive Modesto, CA 95355
7	May 7, 2008	Celia Aceves, Modesto Irrigation District	1231 Eleventh Street P.O. Box 4060 Modesto, CA 95355
8	May 8, 2008	Marjorie Blom, Stanislaus Local Agency Formation Commission	1010 Tenth Street, 3 rd Floor Modesto, CA 95354
9	May 9, 2008	Arie W. Vander Pol, Turlock Irrigation District	333 East Canal Drive P.O. Box 949 Turlock, CA 95381-0949
10	May 9, 2008	Dale Skiles, Salida Fire Protection District	P.O. Box 1335 Salida, CA 95368
11	May 9, 2008	Joshua Mann, Stanislaus County Airport Land Use Commission	1010 Tenth Street, Suite 3400 Modesto, CA 95354
12	May 9, 2008	Raul Mendez, Stanislaus County Environmental Review Committee	1010 Tenth Street, Suite 6800 Modesto, CA 95354
13	May 9, 2008	William D. Ross, Law Offices of William D. Ross on Behalf of Salida Fire Protection District and Stanislaus Consolidated Fire Protection District	520 South Grand Avenue, Suite 300 Los Angeles, CA 90071-2610

A. MASTER RESPONSE 1—FIRE PROTECTION DISTRICTS

The Stanislaus Local Agency Formation Commission (LAFCo) adopted the municipal services review (MSR) of the City in September 2004 as part of the City's request to amend its sphere of influence. The MSR is a Stanislaus LAFCo document that demonstrates the City's ability to adequately provide municipal services to its adopted or proposed sphere of influence, including fire, police, sewer, water, and other services. The sphere of influence and MSR should be reviewed at least every five years to ensure each agency's continued ability to provide municipal services within its boundaries and sphere of influence. The City is proposing no changes to its sphere of influence and no annexations as part of this project. As a result, the City sees no need to amend its MSR.

It is the policy of the City to plan and develop large areas (community planning districts or a portion) within the Planned Urbanizing Area using specific plans (Government Code Section 65450 et seq.). The City's policy for the establishment of specific plans includes the preparation of an infrastructure master plan and a finance master plan, which present more specific information about infrastructure and service needs, needed funding, and the financing mechanism. Each specific plan will be subject to environmental review before it may be adopted, which will allow a project-specific analysis to be prepared using the most current information available.

The draft MEIR and related environmental documents provide substantial environmental review for subsequent projects. However, the draft MEIR does not provide the final word on the subject. Rather, the draft MEIR is intended as the base analysis from which to tier other environmental documents. This means that whenever the City contemplates a project that is subject to environmental review, staff reviews the draft MEIR to determine whether the proposed project is within the scope of the draft MEIR (Government Code Section 21157 et seq., State CEQA Guidelines Section 15177) and, if so, whether any mitigation measures in the draft MEIR should be applied to the proposed project. If staff determines that potential impacts of the proposed project have not been disclosed adequately or that circumstances surrounding the analysis in the draft MEIR have changed, additional environmental documentation must be prepared.

Recently, the boards of directors of both the Stanislaus Consolidated Fire Protection District (FPD) and the Salida FPD have formally asked the City to consider providing contract emergency and administrative services to the areas currently served by these districts. The City has agreed to participate with the districts in evaluating the possibility of providing those services. Should any of these discussions result in tentative agreement among the parties to have the City provide emergency and administrative services to these districts, representatives of the City and the districts will meet with Stanislaus LAFCo staff to determine what steps are necessary to effect any changes in the City's fire protection service area.

To ensure that issues related to fire services are considered, the UAGP will include Policies V.K.2(m) and VI.D.1(c)(5).

The wording of these policies will not be revised because it may not be appropriate or necessary in every circumstance for the City to negotiate financial arrangements for fire protection services with fire protection districts from whose territory detachments are contemplated. The environmental impacts of each reorganization will be evaluated individually by the City as each proposal occurs, and, if a fiscal impact might reasonably result in a physical impact, the City will consider such a physical impact as part of the environmental review. In situations where the City can provide the best fire protection service, it is appropriate that the City receive revenue collected for the service it provides. In situations where another

district can provide the best fire protection service, other courses of action, such as negotiation for fire protection service or revenue, will be considered by the City.

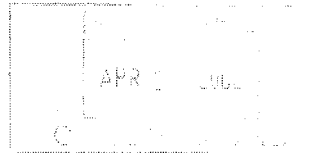


San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

Letter 1

April 8, 2008

Cindy van Empel
City of Modesto
Planning Division
1010 10th Street, 3rd Floor
Modesto, CA 95353



Project: SCH #2007072023

Subject: CEQA comments regarding the Draft MEIR for the Amendment to the Urban Area General Plan

District Reference No: 20080192

Dear Ms. Empel:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above and concurs with the findings in the Air Quality section of the Draft Master Environmental Impact Report. The District expects that this project may have a significant impact on air quality.

1-1

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Jon Klassen at (559) 230-5843 and provide the reference number at the top of this letter.

Sincerely,

David Warner
Director of Permit Services

for: [Signature]
Arnaud Marjollet
Permit Services Manager

DW: jk

Sayed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95355-8718
Tel: (209) 557-0400 FAX: (209) 557-5475

Central Region (Main Office)
1999 E. Galtysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061
www.sjvair.org

Southern Region
2700 N Street, Suite 215
Bakersfield, CA 93301-2375
Tel: (805) 328-6900 FAX: (805) 328-6905

Printed on recycled paper

**B. RESPONSES TO COMMENT LETTER 1—DAVID WARNER, SAN JOAQUIN
VALLEY AIR POLLUTION CONTROL DISTRICT**

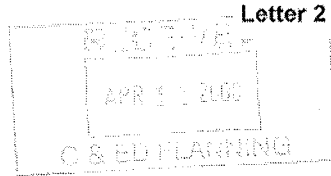
1. Response to Comment 1-1

The San Joaquin Valley Air Pollution Control District concurs with the findings in Chapter V, Section 2, *Degradation of Air Quality*, of the draft MEIR and expects that this project may have a significant impact on air quality. No further response is necessary.



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922



April 8, 2008

Regulatory Division (SPK-2008-00403)

Cindy van Empel
Planning Division
P.O. Box 642
1010 Tenth Street, Third Floor
Modesto, California 95353

Dear Ms. van Empel:

We are responding to your March 26, 2008 request for comments on the City of Modesto Urban Area General Plan and EIR. This project area is located at Latitude 37.6°, Longitude - 120.9°, in Modesto, in Stanislaus County, California. Your identification number is SPK-2008-00403, local identification number SCH#2007072023.

The Draft Master Environmental Impact Report for Amendment to the Urban Area General Plan which your office supplied to the U.S. Army Corps of Engineers makes mention of projects which we believe may be under our jurisdiction. These projects include road widening, re-lining of the primary effluent outfall (from Sutter Avenue to Jennings Road), and the development of Comprehensive Planning Districts.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on any project site, you should prepare a wetland delineation, in accordance with the "Minimum Standards for Acceptance of Preliminary Wetland Delineations", under "Jurisdiction" on our website at the address below, and submit it to this office for verification. A list of consultants that prepare wetland delineations and permit application documents is also available on our website at the same location.

The range of alternatives considered for these projects should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to

2-1

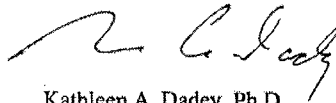
-2-

filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

2-1
cont.

Please refer to identification number SPK-2008-00403 in any correspondence concerning this project. If you have any questions, please contact E. Maureen Hanlon at email Erin.M.Hanlon@usace.army.mil, or telephone (916) 557-7759. You may also find additional information at our website: www.spk.usace.army.mil/regulatory.html.

Sincerely,



Kathleen A. Dadey, Ph.D.
Chief, South Branch Division

Copy furnished:

William Marshall, Storm Water and Water Quality Certification Unit, Central Valley Regional
Water Quality Control Board, 11020 Sun Center Drive #200, Rancho Cordova, California
95670-6114
U.S. Fish and Wildlife Service, Endangered Species Division, 2800 Cottage Way, Suite 2605,
Sacramento, California 95825-3901
Chief, Water Quality Certification Unit, California State Water Resources Control Board, 1001 I
Street, Sacramento, California 95814-2828
Dave Smith, U.S. Environmental Protection Agency, Region IX, Wetlands Regulatory Office
(WTR-8), 75 Hawthorne Street, San Francisco, California 94105-3901
Kent Smith, California Department of Fish and Game, Region 2, 1701 Nimbus Road, Rancho
Cordova, California 95670-4599

**C. RESPONSES TO COMMENT LETTER 2—KATHLEEN A. DADEY, U.S. ARMY
CORPS OF ENGINEERS**

1. Response to Comment 2-1

The U.S. Army Corps of Engineers (Corps) is concerned that certain projects mentioned in the draft MEIR may fall under its jurisdiction. The Corps notes that, to ascertain whether waters of the United States exist on any project site, wetland delineations should be prepared and the range of alternatives for these projects should include alternatives that avoid impacts on wetlands and waters of the United States. The Corps further states that, in the event avoidance is not feasible, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation. These issues are dealt with in the draft MEIR, and mitigation measures regarding potential effects on wetlands and jurisdictional waters can be found in Chapter V, Section 7, *Loss of Sensitive Wildlife and Plant Habitat*, of the draft MEIR.

In addition, the project objectives (draft MEIR, pages III-7 and III-8) indicate that the City does not intend to substantially change the City's land use diagram or increase the development potential within the UAGP boundary. Alternatives must "feasibly attain most of the basic objectives of the project." Alternatives that have the potential to avoid impacts on wetlands and waters of the United States would not meet the project objectives and therefore were not considered. However, Mitigation Measure SWPH-4 (draft MEIR, pages V-7-17 and V-7-18) requires the City to obtain a discharge permit if a project will affect any wetlands or waters of the United States and to prepare an alternatives analysis before the issuance of any discharge permits.

Letter 3

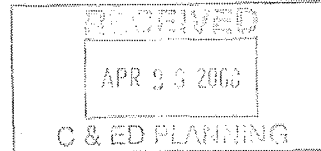
STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

April 24, 2008

Cindy van Empel
City of Modesto
1010 Tenth Street, Suite 3300
Modesto, CA 95354Re: Notice of Completion, Draft EIR
Modesto Master EIR Update and General Plan Amendment
SCH# 2007072023

Dear Ms. van Empel:

As the state agency responsible for rail safety within California, the California Public Utilities Commission (CPUC or Commission) recommends that development projects proposed near rail corridors be planned with the safety of these corridors in mind. New developments and improvements to existing facilities may increase vehicular traffic volumes, not only on streets and at intersections, but also at at-grade highway-rail crossings. In addition, projects may increase pedestrian traffic at crossings, and elsewhere along rail corridor rights-of-way. Working with CPUC staff early in project planning will help project proponents, agency staff, and other reviewers to identify potential project impacts and appropriate mitigation measures, and thereby improve the safety of motorists, pedestrians, railroad personnel, and railroad passengers.

3-1

The DEIR states the following:

(6) To provide acceptable traffic operations and to maintain safe crossings, the City shall support the construction of grade-separated crossings for all new crossings. Existing at-grade crossing shall be maintained and new developments shall be evaluated to ensure that railroad crossing operations are not compromised. The City shall seek state funding and grants to improve railroad crossings within the City of Modesto. Any modifications to existing railroad crossings or new crossings (at-grade or grade separated) shall be coordinated with the appropriate railroad company. (UAGP Policy V-B.6[k]) [p. V-1-21]

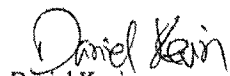
3-2

CPUC supports the construction of grade-separated crossings, and the inclusion of this feature in CEQA documents. However, construction or alteration of a railroad crossing requires approval by the CPUC. Establishment of a new crossing requires a formal Application to the Commission (Rules of Practice and Procedure, Rule 3.7 to 3.9). Modification of an existing crossing, where all interested parties are in agreement, may be authorized by Commission staff pursuant to General Order 88-B "Rules for Altering Public Highway-Rail Crossings."¹ The Commission's role is not shown in page II-13, presenting responsible agencies and qualifying permits and actions.

¹ See <http://www.cpuc.ca.gov/PUC/Transportation/crossings/Filing+Procedures/go88B.htm>.

Thank you for your consideration of these comments. If you have any questions in this matter, please call me at (415) 703-1306.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Daniel Kevin". The signature is written in a cursive, somewhat stylized font.

Daniel Kevin
Regulatory Analyst
Consumer Protection and Safety Division

**D. RESPONSES TO COMMENT LETTER 3—DANIEL KEVIN, CALIFORNIA
PUBLIC UTILITIES COMMISSION**

1. Response to Comment 3-1

The commenter recommends that new developments near rail corridors be planned with the safety of the corridors in mind. Accordingly, the commenter further recommends that new development near rail corridors include the California Public Utilities Commission (CPUC) early in the permitting process to allow CPUC staff to advise on measures that would protect the safety of motorists, residents, railroad personnel, and rail passengers.

Page II-13 of the draft MEIR is revised as shown below to include the CPUC on the list of responsible agencies (see Chapter II, Section D of the draft MEIR). This will ensure that the City consults with the CPUC on projects that are subject to CEQA review.

a. Responsible Agencies

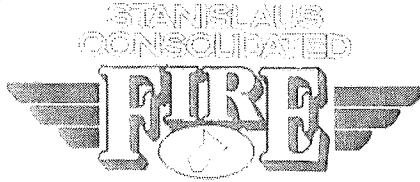
Pursuant to PRC Section 21157.1(a), a responsible agency may become the lead agency for a subsequent project under the Master EIR. The following are considered responsible agencies for the purposes of this Master EIR (typical permits or actions that qualify the following as responsible agencies are listed in parentheses):

1. the County LAFCo (sphere of influence amendment and annexation);
2. the County (airport land use plan, IWMP, rezoning, County General Plan, or community plan amendment);
3. the California Department of Fish and Game (streambed alteration agreement and incidental "take" permit);
4. the California Department of Public Health (water supply permits);
5. the California Department of Transportation (road widenings, highway encroachment permits, and airport expansion);
6. the State Lands Commission (lease of public trust lands);
7. the State Water Resources Control Board (biosolids permits);
8. the state Department of Water Resources, Reclamation Board (floodplain and levee encroachment permits); ~~and~~
9. the Regional Water Quality Control Board (waste discharge requirements, National Pollutant Discharge Elimination System permits, and Clean Water Act certifications).; and
10. the California Public Utilities Commission (construction or alteration of a railroad crossing).

2. Response to Comment 3-2

The commenter mentions that construction or alteration of a railroad crossing requires approval by the CPUC, but its role is not shown on page II-13 of the draft MEIR, which presents responsible agencies and qualifying permits and actions. As noted in Response to Comment 3-1, the CPUC has been added to the list of responsible agencies.

Letter 4



Stanislaus Consolidated Fire Protection District
3324 Topeka Street
Riverbank, CA 95367
(209) 869-7470
Fax (209) 869-7475

April 25, 2008



Cindy Van Empel
Senior Planner
City of Modesto
P.O. Box 642
Modesto, CA 95353

Dear Ms. Van Empel:

The following are comments from the Stanislaus Consolidated Fire Protection District regarding the City of Modesto Draft Master Environmental Impact Report for amendment to the Urban Area General Plan. Due to the length of the document my response will relate to every part of the Draft MEIR affecting fire and rescue emergency services provided by Stanislaus Consolidated Fire Protection District.

Any growth of the City of Modesto into the Stanislaus Consolidated Fire Protection District will potentially take millions in revenue from the District, thus significantly impacting our ability to continue to provide services throughout the rest of the District. The resulting detachment and loss of revenue will continue to erode the financial stability of the Fire District. Like many other government agencies, fire districts are significantly underfunded in Stanislaus County, thus creating a situation wherein each fire district lacks the staffing, equipment, and facilities to remain efficient and effective. In order to provide an effective response, every fire district relies heavily on its neighboring agencies for assistance. For many districts, this is the only means of providing effective response and mitigation to emergencies.

4-1

SCFPD comprises two-hundred seventeen (217) square miles of territory in the central eastern portion of Stanislaus County. Currently the District runs over four-thousand two-hundred (4,200) calls each year. On average we have approximately twelve (12) personnel assigned to five (5) units providing emergency response. This staffing model is far from sufficient and the Fire District has been in the process of planning and attempting to locate the funds to implement the enhanced staffing currently lacking. Any revenue loss would seriously undermine the Fire District's efforts in this area. The impact would also negatively impact the equipment and facilities demands for the Fire District. Any reduction in revenue is seen as a significant set-back to the Fire District. Each and every affected fire district will feel the same regarding the

economic loss stemming from a detachment.

Suggested changes include:

All references stating: "The City of Modesto may negotiate with affected fire protection districts when an annexation to the City is contemplated and before it has been effected to determine whether the boundary change may result in the erosion of fire protection or other emergency services" needs to be changed to: "The City of Modesto **shall** negotiate..."

An economic/operational impact analysis needs to be prepared by the City of Modesto regarding each annexation/detachment from a fire protection district. The analysis needs to concentrate on the fire district as a whole, not just the area being annexed/detached, and make determinations and include viable alternatives regarding the impact of the fire district to continue providing services to the remainder of their constituents. These alternatives need to include but not be limited to:

- Contracting with the fire district to provide services to the non-detached portion for the fire district's remaining income.
- Sharing revenues and emergency response in the annexed area, to off-set the fire district's economical loss, indexed to the San Francisco-Oakland-San Jose consumer price index.
- Consolidation of the entire fire district into the City of Modesto.

4-1
cont.

The primary underlying issue is that the future fire service delivery platform within Stanislaus County shouldn't be determined in a piece-meal fashion by City of Modesto annexations and detachments. The same can be said regarding every other city. There needs to be a combined approach between the City of Modesto, other cities within the County, Stanislaus County, LAFCO, and the fire districts impacted, to provide a procedure ensuring effective fire services continue to exist with future annexations and detachments. This issue has been around for the last decade or two--it's now time to be proactive and make the hard decisions regarding the future of the fire service within Stanislaus County.

Please contact me directly with questions regarding this issue.

Thank you for your cooperation.

Sincerely,



Stephen Mayotte
Fire Chief

**E. RESPONSES TO COMMENT LETTER 4—STEPHEN MAYOTTE, STANISLAUS
CONSOLIDATED FIRE PROTECTION DISTRICT**

1. Response to Comment 4-1

The commenter suggests that all references stating “[t]he City of Modesto *may* negotiate with affect fire protection districts when an annexation to the City is contemplated” should be changed to “[t]he City of Modesto *shall* negotiate” (emphasis added).

The referenced policy/mitigation measure has not been changed. In addition, please see Master Response 1, related to fire services.

Apr. 28. 2008 8:00AM

CA DEPARTMENT OF TRANSPORTATION

No. 6268 P. 1

Letter 5

STATE OF CALIFORNIA
FACSIMILE COVER
10-2A-0049

TO: Cindy van Empel		FROM: Joshua Swearingen, Transportation Planner Caltrans – D10, Intergovernmental Review	
		DEPARTMENT OF TRANSPORTATION 1976 EAST CHARTER WAY STOCKTON, CA 95205	
UNIT/COMPANY: City of Modesto		DATE: 04-28-08	TOTAL PAGES (Including Cover Page): 2
		FAX # (209) 942-7164	ATSS FAX N/A
DISTRICT/CITY: District 10 / City of Modesto		PHONE # (209) 948-7142	ATSS N/A
PHONE # (209) 577-5267	FAX # (209) 491-5798	ORIGINAL DISPOSITION:	

RE: 10-STA-99/108/132/219
Modesto Urban Area GPU
Draft MEIR

Thank you,

Josh

Apr. 28. 2008 8:00AM CA DEPARTMENT OF TRANSPORTATION

No. 6268 P. 2

STATE OF CALIFORNIA—BUSINESS TRANSPORTATION AND HOUSING AGENCY

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION

P.O. BOX 2048 STOCKTON, CA 95201
(1976 E. CHARTER WAY/1976 E. DR. MARTIN
LUTHER KING JR. BLVD. 95205)
PHONE (209) 941-1921
FAX (209) 948-7194
TTY: 711



*Flex your power!
Be energy efficient!*

April 28, 2008

**10-STA-99/108/132/219
Modesto Urban Area GPU
Draft MEIR**

Cindy van Empel
City of Modesto
1010 10th Street, Suite 3300
Modesto, CA 95354

Dear Ms. van Empel:

The California Department of Transportation (Caltrans) appreciates the opportunity to review and comment on the Modesto Urban Area General Plan Update. This is a review of the Draft Master EIR for City of Modesto Urban Area General Plan Amendment.

We have circulated copies of the application and supporting documentation to our functional units for review. Caltrans has no comment at this time.

- The projects within the Modesto Urban Area General Plan Amendment area will cause a significant impact to State Routes 99, 132, 219, and 108. As the General Plan projects within the influence area of the State Highway System (SHS) move forward, a detailed traffic analysis for each development may be required. Please refer to the "Guide for the Preparation of Traffic Impact Studies" developed by Caltrans, in order to determine impacts and mitigations to the affected State Highway System. 5-1
- Any work within State right-of-way will required Encroachment Permit. 5-2

Caltrans encourages contacting the Native American Heritage Commissions: 915 Capitol Mall, Room 364, Sacramento, CA, 95814, Telephone (916) 653-4082, Fax (916) 657-5390 for advice on consulting with Native Americans regarding any cultural concerns within the project area. 5-3

If you have any questions or would like to discuss our comments in more detail, please contact Joshua Swearingen at (209) 948-7142 (e-mail: Joshua_swearingen@dot.ca.gov) or me at (209) 941-1921.

Sincerely,

TOM DUMAS, CHIEF
OF METROPOLITAN PLANNING

"Caltrans improves mobility across California"

**F. RESPONSES TO COMMENT LETTER 5—TOM DUMAS, CALIFORNIA
DEPARTMENT OF TRANSPORTATION**

1. Response to Comment 5-1

The commenter, the California Department of Transportation (Caltrans), notes that projects within the Modesto UAGP amendment area will cause a significant impact on State Routes (SRs) 99, 132, 219, and 108, and a detailed traffic analysis for each development may be required.

It is the City's standard practice to complete a traffic analysis for new developments. Policy TC-42 on page V-1-23 states:

For new development with the potential to generate 100 or more peak hour vehicle trips (greater than the number of trips expected to occur with development consistent with the UAGP and the MEIR) the City may require a qualified traffic engineer prepare a traffic study to identify potential transportation impacts and specify improvement measures needed to ensure an acceptable LOS on affected streets.

2. Response to Comment 5-2

Caltrans remarks that any work within state right-of-way will require an encroachment permit. On page II-13 of the draft MEIR, Caltrans has been identified as the agency responsible for issuing highway encroachment permits. It is the City's practice to obtain encroachment permits for all work within state rights-of-way.

3. Response to Comment 5-3

As part of the process under Senate Bill (SB) 18 of 2004, the City contacted the Native American Heritage Commission for information on the Native American tribes that would have cultural concerns within the project area. Using the list provided by the commission, the City has contacted those tribes pursuant to Government Code Sections 65351, 65352, and 65352.3 to offer the opportunity for consultation during the general plan process and to inform them of any proceedings. The City will consider any recommendations that it receives from the tribes within the requirements of SB 18.

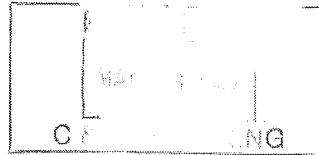
Letter 6

April 25, 2008

Patrick Kelly

Planning Department

1010 10th Street, Modesto, CA 95354



Dear Mr. Kelly:

This is in response to the revision of the General Plan. After carefully examining the general plan I have some questions and comments regarding it. I am concerned about the ability to easily find mandatory elements in a timely fashion. Also the overall document is poorly presented and there is room for improvement. These are some questions regarding the overall layout and naming of the elements.

List of Figures and Exhibits

1. Why is the list of figures and exhibits not placed in the back of the document?
2. Why is the list of tables located in the beginning of the document and not in the back of the document?
3. Why is the list of tables given its own page and not combined with figures and exhibits?
4. Why is the acronyms page listed in the beginning of the document and not the end of the general plan?
5. Why where the amendments to the general plan moved towards the end of the document instead of the beginning?

6-1

Master Table of Contents

1. Is it necessary to have listed "exhibit III" before every single Comprehensive Planning District?
2. Is it necessary to have twenty-three CPD's listed in the master table of contents?

Summary

The original (1995) master table of contents was easier to read than the new revised general plan. The new table of contents is even more confusing and makes the general plan harder to read and understand. The placement of this new list of figures and exhibits, list of tables, and acronyms in the beginning of the document is poorly placed and causes confusion and distracts the reader. The location of these figures should be placed in the end of the document. The placement of the amendments in the beginning

is a better idea. "A General Plan should be easy to read and use" (PLATO, part IV Common Sense Adequacy)

Placement of the Seven Mandatory Elements in the General Plan

Recommended Change

Chapter 1 Land Use

- a) *Introduction*
- b) *Community Growth Strategy*
- c) *Community Growth Policies*
- d) *Community Facilities*
- e) *Implementation*

Chapter 2-Circulation

Chapter 3-Housing

Chapter 4-Public Safety and Noise

Chapter 5-(Conservation of) Environmental Resources and Open Space

Chapter 6- Optional Elements

1. Why are the seven mandatory elements required by the state not mentioned in the general plan?
2. Where does the required land use element start and end?
3. Why is the land use element located in five separate chapters? (Chapter one, two, three, five, eight).
4. Why does the land use element not have its own chapter?
5. Where does the required element circulation start and end?
6. Why does the circulation element not have its own chapter?
7. Why is the mandatory element noise combined in Chapter VII with the Environmental Resources and Open Space chapter?
8. Why is the mandatory element noise not combined in Chapter VI with the Public Safety chapter?

Summary: The overall general plan is poorly arranged into eight chapters. "A General Plan should be easy to read and use" (PLATO, Part IV, Common Sense Adequacy). The layout of the general plan is not clearly organized so that the reader can easily navigate

6-1
cont.

through the plan. The naming of chapters should reflect the mandatory elements and not optional elements or have confusing names. This creates confusion for the casual reader and evaluator. For example, chapter five the Community Services and Facilities, includes the mandatory element circulation. Yet the name of the chapter does not reflect the State mandated element. How would the reader or evaluator clearly know where to look for this element? The naming of chapters should prioritize the mandated elements. The land use element is the most important part of the general plan but yet I do not know where it starts or ends. The land use element is the most confusing element in the entire general plan. "Since the Modesto Urban Plan is a set of instructions on how to build the City, the format of the document is very important" (Chapter 1, Section F, Readers Guide to the General Plan). According to the general plan, the formatting of the document is important yet the implementation of this goal came up short. The land use element should be clearly organized into one chapter and not split into five separate chapters.

Overall Presentation:



Streetscape improvements can contribute to attractive, inviting pedestrian-oriented streets. (Modesto Redevelopment Plan).

Summary of Vision for the Redevelopment Area

Goal 1: *Creates a unique and recognizable image for Modesto and use it to strenuously promote the city. (Modesto Redevelopment Plan)*

1. Why doesn't the City have pictures in its general plan?

Summary: For inspiration all the City needs to look at it is the *Modesto Redevelopment Master Plan 2007*. EWAU presented the material in a way that is interesting and highlights the best attributes. Words alone cannot show exactly how the community should look like. Pictures are the best tool to see what the vision of the community should look like. There is no

6-1
cont.

requirement by PLATO but it would drastically help the general plan present the information in a more precise manner.

Conclusion:

The City's General Plan is in desperate need of repair. The reader or evaluator has to look at several different chapters to find information that should transition smoothly from chapter, to section, to policy, to implementation. I was unimpressed with the format of the general plan and thought the planning department should have done a better job. "A lawsuit challenging the general plan challenges one of four areas: internal consistency" (*Guide to California Planning, Basic Tools - The General Plan, Fulton*). Is the general plan internally inconsistent? The City is vulnerable because anyone could challenge the general plan because it is "internally inconsistent". It would be wise for the City to immediately revise the general plan before the general plan gets challenged and brought into court. Most of these changes hopefully would be reasonable for the planning department to make in a timely manner.

1. Is the general plan internally inconsistent?

6-1
cont.

Recommendations:

- 1. A Revision of the General Plan:** The general plan is poorly written, is internally inconsistent and is difficult for readers and evaluators to read.

1. Having a Single Land Use Chapter.
2. Creating a Circulation Only Chapter.
3. Moving the Mandatory Element Noise into the Safety Element.
4. Add Pictures to the General Plan to Enhance the Visions for the Future.
5. Other Minor Alterations to Make the General Plan Easier to Read.

Sincerely,

Ed Padilla *Ed Padilla*

2437 Manor Oak Dr.

Modesto, CA 95355

G. RESPONSES TO COMMENT LETTER 6—ED PADILLA

1. Response to Comment 6-1

Mr. Padilla offers a number of recommendations for changes to the UAGP. The City appreciates his interest in the UAGP and his thoughtful comments. Although none of his comments relates to the draft MEIR, we have nonetheless provided a response to his questions and recommendations in this document.

The City is undertaking a “maintenance” amendment to the UAGP that will bring the UAGP into conformance with the City’s adopted policies and reflect state and local land use regulations that have been adopted since the 2003 update to the UAGP. By direction of the City Council, this amendment is not intended to make comprehensive changes. The draft UAGP largely follows the layout of the existing, adopted UAGP.

The City intends to begin a comprehensive amendment of the UAGP in the near future that will include reorganizing the UAGP for ease of use and comprehension. The comprehensive update will begin after adoption of the maintenance update. Because the comprehensive update is expected to include extensive public involvement, the City expects that it may take 2 years or more to complete.

Mr. Padilla asks why lists of figures and tables were placed at the beginning of the UAGP. This is a standard location for listing these materials. It follows the table of contents and provides a convenient place for this reference. Similarly, the table of contents lists the Comprehensive Planning Districts (CPDs) so that a reader may find them more easily than going page by page through Chapter III.

California planning law requires each city to “adopt a comprehensive, long-term general plan for [its] physical development” that includes seven elements: land use, housing, circulation, conservation, open space, safety, and noise (Government Code Section 65300). Pursuant to Government Code Section 65301(a), a general plan “may be adopted in any format deemed appropriate or convenient by the legislative body, including the combining of elements.” The City has chosen to combine the elements of its general plan in order to avoid repetitive discussions, group policies by topic area, and reflect the City’s own preferences for organization. Combining elements also enables the City to maintain the required “internal consistency” among the policies of the UAGP by avoiding duplicative policies that may otherwise be out of conformity with one another.

Mr. Padilla cites PLATO (“planning law analysis and test organizer”), published by the Governor’s Office of Planning and Research in the late 1970s, for his contention that the UAGP should be organized strictly as the elements are enumerated in California planning law. Although PLATO offers general advice on general plan contents, it is outdated and is based on a past edition of the state’s general plan guidelines. The current edition of the General Plan Guidelines (published in October 2003) devotes all of its Chapter 5, *Format and Element Integration*, to a discussion of the benefits of preparing a general plan that is organized by topic, rather than solely by element. As stated there, “[o]rganizing the general plan by issue area, such as community development, environmental resources management, and hazards, rather than by the individual mandatory elements, is another effective approach.” The City’s approach is consistent with the provisions of both California planning law and the state General Plan Guidelines.

Mr. Padilla asks why the UAGP does not include pictures. There are at least two reasons for the lack of pictures. First, this is a maintenance update and is not intended to substantially change the existing UAGP in approach and format. The existing UAGP does not include pictures. Second, the primary purpose of the UAGP is to provide “a statement of development policies and [it] shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals,” as required by Government Code Section 65302. This does not require the use of pictures.

Mr. Padilla offers a number of recommendations for reorganizing the format of the UAGP, including having discrete land use and circulation chapters, combining the noise and safety elements, adding pictures to the text, and making it easier to read. The City does not disagree in principle with Mr. Padilla’s overall conclusion that the UAGP could be better organized so that it is easier to read and its policies presented more clearly. However, this current amendment to the UAGP is not intended to make those kinds of substantive changes to the UAGP. The City will consider Mr. Padilla’s recommendations when it undertakes its comprehensive update of the UAGP in the near future.



Letter 7

1231 Eleventh St.
P.O. Box 4060
Modesto, CA 95352
(209) 526-7373

May 6, 2008

City of Modesto
C&ED/Planning Division
P O Box 642
Modesto, CA 95353



RE: Urban Area General Plan & EIR
Location: City of Modesto

Thank you for allowing the District to comment on this referral. Following are the recommendations from our Risk & Property, Electrical, Irrigation and Domestic Water Divisions:

Irrigation

- Table 2-3. Air Quality Measures to Reduce Vehicle Use Item 1 g. states *"The City shall endeavor to build Class I trails on all MID canals and Hetch Hetchy right-of-way to the extent possible"*.
- MID submitted comments to the City of Modesto in regard to the 2006 Updated Non-Motorized Transportation Plan that applies to the Table 2-3 comment as well. The MID comments are as follows:
- Canal rights-of-way through Modesto are the primary transmission corridors through which irrigation water, electricity and domestic water is conveyed throughout the MID service area. These corridors must remain open and unencumbered to allow for maintenance of existing facilities and future growth of these facilities to support critical infrastructure for a significant portion of Stanislaus County.
- The MID reserves its current and future rights to utilize its property, including its canal and electrical easements and rights-of-way, in a manner it deems necessary for the installation and maintenance of electric, irrigation, agricultural and urban drainage, domestic water and telecommunication facilities. These needs, some of which have not yet been determined, may consist of poles, cross arms, wires, cables, braces, insulators, transformers, service lines, open channels, pipelines, control structures and any necessary appurtenances, as may, in the District's opinion, be necessary or desirable.
- New development must be required to provide the corridors necessary to support a bicycle / pedestrian trail network outside of the MID rights-of-way and easements. In cases where development already exists adjacent to MID rights-of-way or easements the District will consider, on a case-by-case basis, granting a minimal encroachment into the right-of-way or easement to accommodate the continuity of the trail network.
- MID requires solid, distinct barriers between development projects that are directly adjacent to MID canal rights-of-way to limit public access to the canal. Solid masonry walls between commercial and residential developments and canal rights-of-way are a standard requirement of MID for any development project. An optional two-foot high solid masonry wall with four-foot wrought iron fence on top may be allowed to separate bike paths from MID rights-of-way where the paths are located within or directly adjacent to the rights-of-way.

7-1

ORGANIZED 1887 • IRRIGATION WATER 1904 • POWER 1923 • DOMESTIC WATER 1994

City of Modesto
Response Letter: Urban Area General Plan & EIR
May 6, 2008
Page 2

- If canal corridors are desirable locations for pedestrian and bike paths the City of Modesto should consider piping portions of the open canal channels and utilizing the piped canal rights-of-way as transportation corridors for roads, bike paths, strip parks and other open space, public use areas. 7-1 cont.
- In Chapter V Environmental Analysis Section 3 b. Physical Conditions the last sentence of the second paragraph states *"MID is generally able to control the amount of urban storm drainage entering the channels through the operations of pumping stations that discharge flow from the surrounding landscape into the channels"*. MID does not have control of pumping stations for urban storm water drainage entering its canals. Virtually all urban storm water drainage into MID canals is controlled by the City of Modesto. MID field staff must contact City of Modesto storm water staff to request curtailment of storm water pumping when the canal system nears capacity. 7-2
- MID currently requires high water level monitoring and shut-off sensors be installed in storm water discharge pumping stations that discharge into MID canals. 7-3

Domestic Water/Risk & Property

- No comments at this time.

Electrical

- The District's Electric Engineering Department will specifically address improvement plans when projects are submitted for individual development proposals within the City of Modesto. The Electrical Division has no objection to the proposed Urban Area General Plan at this time. 7-4

The Modesto Irrigation District reserves its future rights to utilize its property, including its canal and electrical easements and rights-of-way, in a manner it deems necessary for the installation and maintenance of electric, irrigation, agricultural and urban drainage, domestic water and telecommunication facilities. These needs, which have not yet been determined, may consist of poles, crossarms, wires, cables, braces, insulators, transformers, service lines, open channels, pipelines, control structures and any necessary appurtenances, as may, in District's opinion, be necessary or desirable.

If you have any questions, please contact me at 526-7433.

Sincerely,



Celia Aceves
Risk & Property Analyst

Copy: File

H. RESPONSES TO COMMENT LETTER 7—CELIA ACEVES, MODESTO IRRIGATION DISTRICT

1. Response to Comment 7-1

The Modesto Irrigation District (MID) notes that Table 2-3 of the draft MEIR (pages V-2-14 and V-2-15) includes a statement that the City will endeavor to build Class I bicycle trails along MID canals. MID comments that it controls any and all uses of its canal and transmission corridor rights-of-way. Because these corridors must remain open and unencumbered to allow for maintenance and expansion of facilities, MID does not support placing bicycle trails there. MID recommends that any new trails be located outside these corridors.

As noted, Table 2-3 uses the wording “to the extent possible.” MID’s canals and the City and County of San Francisco’s Hetch Hetchy San Joaquin pipelines are the property of those agencies, respectively. As such, the City has no inherent right to construct anything on or over those rights-of-way. In recognition of that fact, it is the City’s policy to work with MID and other property owners when it seeks to utilize facilities to which the City holds no rights.

The City and MID have reached agreement in the past on the construction of Class I bicycle facilities. For example, a portion of the Virginia Avenue Corridor trail lies on MID property. The City has worked closely with MID to secure permission to use and make safe for use the right-of-way of MID Lateral #4 for the continuation of the Virginia Avenue Corridor trail. The City looks forward to continuing its positive working relationship with MID on other, similar projects. MID has been added to the list of responsible agencies on page II-13 of the draft MEIR.

2. Response to Comment 7-2

MID clarifies that it does not control the water that may enter its canals as a result of storm drainage. It notes that the City controls this drainage. The last sentence of the second paragraph on page V-9-3 of the draft MEIR has been revised to reflect this clarification of responsibilities:

There is a finite existing capacity for MID canals to convey storm drainage because the canal systems were designed primarily to convey irrigation water. Consequently, canal capacities for flow conveyance are larger near the eastern edge of the county, where the irrigation water originates and is reduced near the western edge where the terminal agricultural water users are located. Therefore, the suitability of the canal systems for stormwater conveyance contrasts with the needs of urban area stormwater systems that generate more flow in the downstream direction as more and more stormwater discharges are contributed to the channels.

During the winter rainfall season, capacity in some parts of the MID canal system can be limited for acceptance of storm drainage (Ketscher pers. comm., Gilton pers. comm.). The City generally regulates its discharges to the MID facilities by controlling the pumping systems at detention/retention-pond discharge locations. ~~MID is generally able to control~~ The City of Modesto controls the amount of urban storm drainage entering the channels through the operations of pumping stations that discharge flow from the surrounding landscape into the channels. MID staff will request curtailment of pumping by the City before the canals reach their capacity. MID now requires high water level monitoring and shut-off sensors to be installed in City stormwater discharge pumping stations that discharge to MID canals to help avoid exceeding the capacity of canals.

3. Response to Comment 7-3

MID notes that it requires high water level monitoring and shut-off sensors to be installed in City stormwater discharge pumping stations that discharge into MID canals. The second paragraph in Section A(3)(b) in Chapter V, Section 9 (page V-9-3) has been revised to clarify this requirement. Please see Response to Comment 7-2.

4. Response to Comment 7-4

MID notes that its Electrical Engineering Department will address improvement plans when individual development proposals are submitted in the future. The City will advise MID of future development proposals when they are submitted and solicit MID's advice on the related improvement plans.

1010 TENTH STREET, 3RD FLOOR
MODESTO, CA 95354

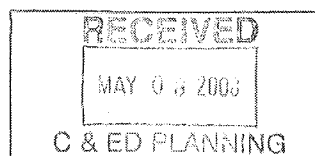


Letter 8

PHONE: (209) 525-7660
FAX: (209) 525-7643
www.stanislauslafco.org

May 8, 2008

Cindy van Empel
City of Modesto C&ED Department
PO Box 642
Modesto, CA 95353



SUBJECT: DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR AMENDMENT TO THE URBAN AREA GENERAL PLAN

Dear Ms. van Empel:

Thank you for the opportunity to review the Draft Master Environmental Impact Report (MEIR) for Amendment to the Urban Area General Plan (UAGP). The following comments are provided for the City's consideration, as Lead Agency.

General Comments:

- As of January 1, 2008, §56668 of the California Government Code has been amended, in regards to the factors to be considered by LAFCO. This update modified the language in factor "m" to read: "Any information or comments from the landowner or owners, voters, or residents of the affected territory." Environmental Justice has also been added as a new factor to be considered: "(o) The extent to which the proposal will promote environmental justice. As used in this subdivision, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services."

8-1
- Figure II-1 Growth Strategy Diagram (dated 7/10/95) and Figure III-1 Adopted Land Use Diagram (dated 2007) – These diagrams include adjacent community boundaries (Spheres of Influence) for reference. Both the Ceres and Hughson Spheres of Influence have expanded since 1995. Figure III-1, although dated 2007, does not accurately reflect the spheres for these cities as of 2007.

8-2
- The Executive Summary and Project Description of the Draft MEIR state that the General Plan will include several new policies, including: "Timing of street frontage improvements for minor annexations—The proposed amendment would address the timing of frontage improvements for minor annexations of County islands." This policy does not appear to be fully reflected in the UAGP. Additionally, LAFCO requests clarification regarding the definition of a "minor" annexation.

8-3
- Various diagrams in the Draft MEIR and UAGP (including noise contours and the Circulation and Transportation Diagram) incorrectly identify Terminal Avenue as "N Santa Fe Ave."

8-4

"ESTABLISHED BY THE STATE OF CALIFORNIA TO SERVE THE CITIZENS, CITIES, SPECIAL DISTRICTS AND COUNTY OF STANISLAUS"

City of Modesto Draft MEIR / UAGP
May 8, 2008
Page 2

- | | |
|---|------|
| <ul style="list-style-type: none"> • The Mancini Park area, south of the Tuolumne River and included in the Tuolumne River CPD, is incorrectly shown as being located outside the General Plan area in various diagrams. For example, the Circulation and Transportation Diagram (Figure V-1) shows the area outside the General Plan boundary, yet within the Sphere of Influence. (All areas within the City's Sphere of Influence should be included in the City's General Plan boundary.) Likewise, in some diagrams the area incorrectly appears to be within the City of Ceres Sphere of Influence. | 8-5 |
| <ul style="list-style-type: none"> • Page VIII-17 (U-4), of the UAGP states: "For property outside the Sphere of Influence and City Limits, but inside, contiguous to, and near the former service area of Del Este Water Company, the extension of water service may be approved on a case-by-case basis." As a point of clarification, LAFCO policy contains a specific exemption with regards to private or mutual water company systems that have been acquired by a City. The exemption covers <u>only</u> the certificated service area and would <u>not</u> cover those area "contiguous to" or "near" the former service area. | 8-6 |
| <ul style="list-style-type: none"> • Pages VIII-1 (C-1) and VIII-2 (D), of the UAGP states that Annexations are known technically as Reorganizations. This is not always correct. Reorganizations involve two or more changes to an organization. An Annexation can also be referred to as a Change of Organization, when only one action is taking place. Consider striking "known technically as Reorganizations" or revise to state, "known technically as Changes of Organization or Reorganizations" (Government Code §56021 and §56073). | 8-7 |
| <ul style="list-style-type: none"> • Stanislaus LAFCO is an independent agency, separate from County government. As such, references to the agency as "Stanislaus County (County) Local Agency Formation Commission (LAFCO)", as used on page VIII-1 (C) and throughout the document, should be changed to simply Stanislaus Local Agency Formation Commission (or LAFCO) to avoid confusing LAFCO as a County agency. (See also II-13D, III-3, IV-2, V-4-9, V-20-17, etc.) | 8-8 |
| <ul style="list-style-type: none"> • The UAGP states that, "the Salida Community Plan, as adopted by Stanislaus County, will continue to guide growth and development for this area, even upon annexation to the City" (pg. III-10, also used on pg. V-20-3 of the MEIR). However, on page III-65, the document states, "the City has no intention to annex Salida during the planning period." Further in the document, on page VIII-1, it states that, "following adoption of the Modesto Urban Area General Plan, Modesto's Sphere of Influence should be expanded to include the Planned Urbanizing Area boundaries as presented on the Growth Strategy Diagram." It is noted that the Salida Community Plan area, albeit now covering a larger area, is included in the Growth Strategy Diagram. Please clarify these statements. If the City has no intention to annex the Salida Community Plan area, a request to include it in the City's sphere would be inconsistent with LAFCO policies. | 8-9 |
| <ul style="list-style-type: none"> • Municipal Service Review – When determining spheres of influence for cities and special districts, LAFCO must first conduct a service review of the municipal services provided in an area as determined by the Commission. The municipal service review (MSR) is a comprehensive review of all the agencies that provide the identified services within the designated area. Typical municipal services include police, fire, sewer, water and storm drainage services. When conducting the MSR, the Commission must prepare a written | 8-10 |

City of Modesto Draft MEIR / UAGP
May 8, 2008
Page 3

statement of its determinations with respect to the six factors outlined in Government Code Section 56430. The MSR is a tool for establishing an appropriate sphere of influence (SOI) for each agency.

8-10
cont.

Lead Agency

- As Lead Agency the City is responsible for monitoring and reporting to ensure compliance with CEQA. As a Responsible Agency, LAFCO will review and/or utilize the City's adopted environmental document when considering a project proposal before LAFCO. Therefore, it is suggested that under any/all sections such as "Measures Which Mitigate Direct (or Cumulative Impacts)", references to the adopted policies of LAFCO be removed.

8-11

Sample: "The adopted policies of the ~~LAFCO~~ and the UAGP [sections listed] would reduce direct impacts..."

Effects on Agricultural Lands (Section 4 of the MEIR):

- One of LAFCO's main charges, as put forth by the Legislature, is to protect and promote agriculture. The Williamson Act is considered a mechanism to preserve agricultural land both in the short and long term. Government Code Section 51243.5 requires the Commission to determine whether a city may exercise an option not to succeed to a Williamson Act contract upon annexation. As identified in the law, the city may exercise its option not to succeed to the contract if it is determined by LAFCO that each of the following had occurred prior to January 1, 1991:

1. The land being annexed was within one mile of the city's boundary when the contract was executed;
2. The City had filed with the local agency formation commission a resolution protesting the execution of the contract;
3. The local agency formation commission had held a hearing to consider the city's protest to the contract;
4. The local agency formation commission had found that the contract would be inconsistent with the publicly desirable future use and control of the land; and,
5. The local agency formation commission had approved the city's protest.

8-12

If the City intends not to succeed to the contract(s) upon annexation, this should be stated in any resolution adopted by the City approving the proposal. In addition, pursuant to Government Code Section 56754, the Commission shall determine whether the City shall succeed to the Williamson Act rights, duties, and powers of the County pursuant to Section 51243, or if the City may exercise its option to not to succeed to the contract pursuant to Section 51243.5.

- The County's Agricultural Element was revised and updated in December 2007. The Draft MEIR appears to reference an outdated version of the document (AL-4 through

8-13

City of Modesto Draft MEIR / UAGP
May 8, 2008
Page 4

14). Likewise, AL-3 appears to be inconsistent with the section of the County's Land Use Element it summarizes.

8-13
cont.

- Page V-4-9 (5. Policies Which Avoid Impacts) – It is suggested that reference to LAFCO policies in the following sentence be removed from the first paragraph: "LAFCO and County policies are included because they reduce or avoid cumulative impacts."

8-14

LAFCO is a Responsible Agency, and therefore, it is unclear how LAFCO policies will reduce or avoid cumulative impacts as part of potential mitigations for a City proposed document (e.g., the City of Modesto General Plan Update Draft Master EIR).

Increased Demand for Long-term Water Supplies (Section 5 of the MEIR)

- Page V-5-5 (A.3b) – The unincorporated communities of Grayson and Westley are incorrectly identified as cities. Please revise.
- Page V-5-7 (A.4c) – City policy WS-4 discusses the LAFCO Municipal Service Review (MSR) process. Government Code Section 56430 has been amended as of January 1, 2008. Therefore, it is suggested the following sentence be revised to conform with these recent changes:

8-15

"These factors require consideration of several factors such as: growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to provide services; status of, and opportunities for, shared facilities; and accountability for community service needs, including governmental structure and operational efficiencies."

8-16

- Page V-5-16 (C.2 - Measures Which Mitigate Cumulative Impacts) – This section should read as follows:

8-17

"The adopted policies of Stanislaus LAFCO, the Stanislaus County General Plan, and the City's UAGP listed in section A-5 a, b, and c will reduce cumulative impacts to a less-than-significant level during normal years. There will be a significant and unavoidable impact during drought years by 2020."

- As mentioned previously, LAFCO is a Responsible Agency and will utilize the City's environmental documentation when reviewing the City's ability to provide long-term water supplies within its sphere of influence and/or city boundaries.

8-18

Increased Demand for Sanitary Sewer Service (Section 6 of the MEIR)

- Page V-6-4 (A.4b) – It is suggested the following sentence conform with recent changes to the Government Code regarding Municipal Service Reviews (§56430):

8-19

"These factors require consideration of several factors such as: growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to

City of Modesto Draft MEIR / UAGP
May 8, 2008
Page 5

provide services; status of, and opportunities for, shared facilities; and accountability for community service needs, including governmental structure and operational efficiencies."

8-19
cont.

- Page V-6-12 (C.1) states: "The existing and proposed policies described above under the heading *Existing Policies Applying to the Study Area* will mitigate future impacts relative to the provision of wastewater treatment." As this section includes a discussion of Stanislaus LAFCO Policies (pages V-6-3 and V-6-4), it must be noted that LAFCO is a Responsible Agency, and will utilize the City's environmental documentation when reviewing the City's ability to provide sanitary sewer services within its sphere of influence and/or city boundaries.

8-20

Increased Demand for Fire Services (Section 14 of the MEIR)

- Page V-14-3 (Top of Page) – The top two paragraphs each reference in parentheses: "Stanislaus Local Agency Formation Commission, 2007." It is unclear what Stanislaus LAFCO document is being referenced. If the reference source is the Stanislaus LAFCO Countywide Fire Services Municipal Service Review, which was adopted by the Commission on April 25, 2007, please state.

8-21

- Page V-14-3 (Section 4b) mentions "the municipal services review", please note that the correct title is: "Municipal Service Review".

8-22

- Page V-14-4 (Section 4c) states that the Stanislaus County General Plan has no applicable policies for fire protection. However, the Safety Element of the County's General Plan discusses fire protection policies (Goal Two, Policies 7, 9, and associated Implementation Measures).

8-23

- Page V-14-7 (Policy FS-18) – It is suggested that this policy be revised as follows:

"The City of Modesto shall negotiate with affected fire protection districts when an annexation to the City is contemplated and before it has been affected to determine whether the boundary change may result in the erosion of fire protection or other emergency services. Any resulting agreements must be approved by City Council and the governing board of the fire protection district prior to City Council approval of the annexation request to LAFCO. Options range from the consolidation of the fire protection district into Modesto City Fire to revenue sharing."

8-24

The above suggested changes would be consistent with: 1) the first full paragraph on Page V-14-4; and 2) that the City, in of itself, does not approve annexations and/or consolidations, as these actions are governed by LAFCO pursuant to Government Code Section 56375. (The above language also appears on page V-38 of the UAGP.)

- Page V-14-7 (5. Policies Which Avoid Impacts) – It is suggested that the following sentence be removed from the first paragraph: "LAFCO policies are included because they reduce or avoid cumulative impacts".

8-25

City of Modesto Draft MEIR / UAGP
May 8, 2008
Page 6

LAFCO is a Responsible Agency, and therefore, it is unclear how LAFCO policies will reduce or avoid cumulative impacts as part of potential mitigations for a City proposed document (e.g., the City of Modesto General Plan Update Draft Master EIR).

8-25
cont.

- Page V-14-7 (5a) – Stanislaus Local Agency Formation Commission Policies state the following: "The LAFCO will not approve annexations without a plan for services and in a manner that would eliminate services." This sentence is unclear.

Plans for Services are required whenever a local agency submits a resolution of application for a change of organization or reorganization. A plan is not required to be submitted if there is petition of application. A Plan for Service must include information that the range and level of services currently available within the existing boundaries will be at least maintained in the proposed annexation area. Annexations, which reduce the existing levels of services, will not be approved (LAFCO Policy 2-C).

A Plan for Services shall include all of the following information and any additional information required by the Commission or Executive Officer:

- a) An enumeration and description of the services to be extended to the affected territory.
- b) The level and range of those services.
- c) An indication of when those services can feasibly be extended to the affected territory.
- d) An indication of any improvement or upgrading of structures, roads, sewer or water facilities, or other conditions the local agency would impose or require within the affected territory if the change of organization or reorganization is completed.
- e) Information with respect to how those services will be financed.

8-26

- Page V-14-9 (4b. Significant Direct Impacts in the Planned Urbanizing Area) – Last paragraph should read as follows: "The City will take this erosion of funding into account prior to submitting an application to LAFCO in order to avoid creating a situation where services are adversely affected. As far as its indirect physical impacts (i.e., increased risk of fire damage), the City, as Lead Agency, would be responsible for avoiding that outcome through agreements between affected fire protection districts."

8-27

The above suggested changes would be consistent City policy (FS-18) and LAFCO policies requiring a Plan for Service with the City's application (Government Code Section 56653).

- Page V-14-10 (C.1 and 2) Measures Which Mitigate Direct Impacts – As Lead Agency the City would be responsible for monitoring and reporting to ensure compliance with CEQA. As Responsible Agency, LAFCO will review and/or utilize the City's adopted environmental document when considering a project proposal before LAFCO.

8-28

Therefore, it is suggested that this section be revised delete the reference to LAFCO policies as follows: "The adopted policies of ~~the LAFCO and the UAGP~~ (FS-1 through FS-18) would reduce direct impacts by encouraging the provision of adequate City fire services concurrent with new development."

City of Modesto Draft MEIR / UAGP
May 8, 2008
Page 7

In addition, the following sentence (under C.2.) should be revised to reflect the City as Lead Agency: "The adopted Modesto Urban Area General Plan (UAGP) policies of the Stanislaus LAFCO under the Cortese-Knox-Hertzberg Act and proposed UAGP Policy FS-18, would avoid cumulative impacts by encouraging provision of adequate fire services within the City of Modesto.

8-28
cont.

- LAFCO policy requires that upon annexation and development of new territory, the existing service levels provided by the City be at least maintained in the annexing territory, which would include fire protection services. More specifically, LAFCO requests that the annexation agency provide information such as:
 1. What are the current fire levels of service being provided within the City limits, and what specific measures will be implemented to improve and/or maintain the current level of services to the territory upon annexation?
 2. In general, Commission policies prefer city annexation/detachments and upon annexation to the City, territory is detached from the affected fire district. Therefore, as Lead Agency, the proposed project description must include a discussion of the impacts of the detachments from the affected rural Fire Protection District(s). In assessing the impacts, a description of the current ISO rating levels provided by the District's to the area, and the anticipated level, which will be provided by the City upon annexation, should be provided. In addition, although economic impacts of a project are not usually considered in an environmental analysis, the identification of the amount of property tax loss to the District(s) and their anticipated service cost savings would be helpful in assessing the effects of the annexation and detachment.

8-29

If you have any questions about the above, please contact our office at (209) 525-7660.

Sincerely,



Marjorie Blom
Executive Officer

(I:\LAFCOadmin\BLOMER\Modesto\DraftEIR.GeneralPlan.doc)

I. RESPONSES TO COMMENT LETTER 8—MARJORIE BLOM, STANISLAUS LOCAL AGENCY FORMATION COMMISSION

1. Response to Comment 8-1

The commenter notes that the Government Code section describing factors to be considered by Local Agency Formation Commissions during annexation proceedings has been amended. The discussion on page VIII-3 of the UAGP and at the bottom of page II-7 of the MEIR is revised to reflect these changes, as follows:

- (m) Any information or comments from the landowner or owners, voters, or and residents of the affected territory.
- (n) Any information relating to existing land use designations.
- (o) The extent to which the proposal will promote environmental justice. As used in this subdivision, “environmental justice” means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.

2. Response to Comment 8-2

The commenter notes that both the Ceres and Hughson spheres of influence have expanded since 1995, and therefore Figures II-1 (Growth Strategy Diagram) and III-1 (Adopted Land Use Diagram) of the MEIR are incorrect. The commenter is correct; the spheres of influence of both Ceres and Hughson appear to have changed. However, Figure II-1 shows the various planning and administrative boundaries only for the City of Modesto. Planning and administrative boundaries for Ceres, Hughson, Riverbank, and Stanislaus County are not shown.

3. Response to Comment 8-3

The commenter notes that a statement in the MEIR does not appear to match the proposed UAGP amendment. Page VIII-2 of the UAGP includes the following statement: “[i]nfrastructure in County ‘islands’ should be improved to City standards before annexation is complete.” This policy will ensure fair treatment for all annexations of any size, land use, and development potential.

4. Response to Comment 8-4

The commenter notes that various figures in the UAGP and MEIR incorrectly identify Terminal Avenue as “N Santa Fe Avenue.” Figures V-1-1, V-1-3a, V-1-3b, V-1-4a, V-1-4b, and V-3-1 have been revised to reflect this change. The revised figures are provided in Chapter 2.

5. Response to Comment 8-5

The commenter remarks that the Mancini Park area, south of the Tuolumne River and included in the Tuolumne River CPD, is shown incorrectly as located outside the general plan boundaries in various figures in the MEIR. In addition, the commenter mentions that in some MEIR figures, the area incorrectly appears to be within the Ceres sphere of influence.

The Modesto sphere of influence and general plan boundaries in the vicinity of Mancini Park are shown correctly. Mancini Park is within the Modesto city limits. The Modesto sphere of influence is outside the existing general plan boundary at this location. The City Council has elected to make minimal revisions to the UAGP maps during this maintenance amendment to the plan. The UAGP boundary will be changed for consistency with the sphere of influence during the next comprehensive UAGP update.

6. Response to Comment 8-6

The Stanislaus LAFCo provides a point of clarification concerning water service areas mentioned in the UAGP. This information is hereby incorporated into the MEIR.

7. Response to Comment 8-7

The Stanislaus LAFCo offers clarification on the incorrect use of the term “annexation” in the UAGP. This correction will be integrated into the UAGP on pages VIII-1 and VIII-2.

8. Response to Comment 8-8

The commenter notes that the Stanislaus LAFCo is an independent agency, separate from the Stanislaus County (County) government. It is recognized that the Stanislaus LAFCo is an independent agency and separate from the County government. Where the Stanislaus LAFCo is referenced in the document as the “Stanislaus County (County) Local Agency Formation Commission (LAFCo),” this is done for clarification purposes.

9. Response to Comment 8-9

The commenter requests that the City clarify its statements regarding the status of the Salida Community Plan relative to the UAGP. Since the 2003 update of the UAGP, the Stanislaus County Board of Supervisors has adopted a new Salida Community Plan. The Salida Community Plan was presented to the Board of Supervisors as a ballot initiative. Under California law, the Board of Supervisors must either place the initiative on the ballot (to be voted on by the County electorate) or adopt it without changes. The Board of Supervisors chose to adopt the “Salida Now Initiative” as the community plan, but did not prepare a CEQA analysis or water supply analysis.

The City is making only minor revisions to its UAGP, as necessary to reflect new statutes and regulations. In order to keep to this objective, the City Council has stated that it is not making

any substantive changes to the UAGP's land use policies. As a result, the policies relating to the Salida Community Plan will remain as shown in the 2003 UAGP. The City has no intention to annex or otherwise influence land within the Salida area. The City will consider its policies toward Salida when it undertakes the comprehensive update of the UAGP.

10. Response to Comment 8-10

The commenter presents information on MSRs as they are used as a tool for establishing an appropriate sphere of influence for agencies that provide the identified services within a designated area (i.e., police, fire, sewer, water and storm drainage services). This information is hereby incorporated into the MEIR.

11. Response to Comment 8-11

The commenter, representing the Stanislaus LAFCo, points out that the Stanislaus LAFCo is a responsible agency and asks that the City remove references to Stanislaus LAFCo policies from the MEIR. The MEIR references Stanislaus LAFCo statutes and policies, as well as the statutes and policies of agencies such as the State of California and Stanislaus County, in order to illustrate the considerations that will affect reorganization decisions, such as annexations. By explaining the regulatory setting, the MEIR is also describing the extent to which the adopted policies will reduce the potential for impacts from projects that will be subject to Stanislaus LAFCo review. As a responsible agency, the Stanislaus LAFCo has discretionary approval power over annexations or reorganizations that may occur as a result of the proposed project (California Code of Regulations 15381). Although its discretion is limited, the Stanislaus LAFCo nonetheless may impose various requirements on a project that mitigate its potential impacts.

Section D of Chapter I, *Executive Summary*, of the draft MEIR explains that the City is examining the potential impacts of development under the UAGP in light of the mitigating effects of existing and proposed policies. Where pertinent, policies that direct the City or other agencies to act in a manner that protects the environment are used. This information will be retained in the MEIR.

12. Response to Comment 8-12

The commenter notes that one of the main charges of a LAFCo is to protect agricultural lands. The Williamson Act provides that, under specific circumstances, a city may select to not succeed to existing Williamson Act contracts held by the county when that city annexes the land. As part of the annexation process, the LAFCo will need to know, for any land that is being annexed, whether the city is exercising its option to let the Williamson Act contract lapse.

In accordance with the requirements of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56000, et seq.) and the Land Conservation Act of 1965 (Government Code Section 51200, et seq.), prior to approving an annexation that includes land under an active Williamson Act contract, the LAFCo will determine whether the city is succeeding to that contract (Government Code Section 51243.5). Upon request, the California Department of Conservation will assist the LAFCo in determining the

disposition of the Williamson Act contract and will advise the LAFCo if the department believes contract termination would adversely affect agricultural viability. The LAFCo must find that there is substantial evidence presented by the city that the termination meets the provisions of the Williamson Act.

This process is required by state law and will be followed by both the City of Modesto and Stanislaus LAFCo during the consideration of any such annexation proposals.

13. Response to Comment 8-13

Please see Response to Comment 12-8, which addresses this question and identifies corrections to the text of the MEIR.

14. Response to Comment 8-14

Please see Response to Comment 8-11, which addresses this issue.

15. Response to Comment 8-15

The commenter states that the unincorporated communities of Grayson and Westley are identified incorrectly as cities. The text of the first full paragraph on page V-5-5 (Section A[3][b]) has been changed to reflect this clarification:

The cities of Oakdale, Riverbank, Grayson, Westley, Hughson, and Waterford, along with the unincorporated communities of Grayson and Westley did not engage in the process or express interest in the project; however, ~~these cities~~ these communities are located in the vicinity of Modesto and may have interest in the future. Hilmar expressly stated they did not have interest in the project. The City currently uses approximately 29,000 af/y of reclaimed wastewater on 2,600 acres of pasture irrigation, and there is an existing demand of approximately 2,000 af/y for area golf courses and parks. The use of reclaimed water is expected to increase in the future to at least 45,000 af/y by 2030.

16. Response to Comment 8-16

The commenter suggests changes to UAGP Policy WS-4, as Government Code Section 56430 regarding MSRs has been amended as of January 1, 2008. The text of the MEIR in the last paragraph on page V-5-7 (Section A[4][c]) is revised as shown below to conform to these recent changes:

When determining spheres of influence for cities and special districts, LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require consideration of ~~infrastructure needs, projected demand from future~~

growth, financing constraints and opportunities, and options for the administration of services; several factors, such as growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to provide services; status of, and opportunities for, share facilities; and accountability for community service needs, including governmental structure and operational efficiencies.

17. Response to Comment 8-17

Please see Response to Comment 8-11, which addresses this issue.

18. Response to Comment 8-18

Please see Response to Comment 8-11, which addresses this issue.

19. Response to Comment 8-19

The commenter proposes changes to UAGP Policy SS-3 as Government Code Section 56430 regarding MSRs has been amended as of January 1, 2008. The following text change in the first full paragraph on page V-6-4 (Section A[4][b]) is made to conform with these recent changes:

When determining spheres of influence for cities and special districts, the LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require the consideration of infrastructure needs, projected demand from future growth, financing constraints and opportunities, and options for the administration of services; several factors, such as growth and population projections; present and planned capacity of public facilities and adequacy of public services, including infrastructure needs and deficiencies; financial ability of agencies to provide services; status of, and opportunities for, share facilities; and accountability for community service needs, including governmental structure and operational efficiencies.

20. Response to Comment 8-20

Please see Response to Comment 8-11, which addresses this issue.

21. Response to Comment 8-21

The commenter points out that on page V-14-3 (top of page) in the first two paragraphs, the reference in parentheses is unclear. The text in these citations is changed as follows to provide clarification:

The rural level of service is characterized as a fire company equipped to handle basic structural fires and related emergencies that will arrive within 15 minutes of travel time, accompanied by other vehicles and capable of sustaining a 500-gallon-per-minute fire flow for one hour. The suburban level of service is characterized as a fire company equipped to handle all “risk emergencies” that will arrive within five to six minutes of travel time and capable of sustaining a flow for a 2,000-square-foot occupancy for one hour. An urban level of service is characterized as a fire company equipped to handle all risk emergencies that will arrive within five minutes of travel time 90 percent of the time, and capable of sustaining adequate fire flow for the designated risk level in the area. These are broad characterizations of levels of service and do not necessarily reflect the district’s effectiveness or efficiency in dealing with a given emergency. (Stanislaus Local Agency Formation Commission Countywide Fire Services Municipal Service Review 2007.)

The Stanislaus Regional 9-1-1 Joint Powers Authority, which includes the various fire protection districts, distributes 911 emergency calls to the respective fire protection district with jurisdiction over the site of the emergency. There are mutual aid agreements among the districts to provide for cross-jurisdictional assistance should a fire district need assistance responding to an emergency. (Stanislaus Local Agency Formation Commission Countywide Fire Services Municipal Service Review 2007.)

22. Response to Comment 8-22

The commenter requests a text change on page V-14-3 (Section A[4][b]) to correct terminology. The text is changed as follows:

The Cortese-Knox-Hertzberg Local Government Reorganization Act (Government Code Section 56000, et seq.) empowers each county Local Agency Formation Commission (LAFCo) to consider incorporation of new cities, annexation of lands to existing cities and special districts, and other changes to city and district boundaries. In order to carry out its responsibilities for planning orderly development and coordination of local government agencies, the LAFCo develops a sphere of influence of each local government agency within the county, with respect to present and probable need for fire services in the area. LAFCo policies discourage “sprawl” (i.e., a pattern of development characterized by LAFCo by the inefficient delivery of important urban services, such as fire protection). By discouraging sprawl, the LAFCo promotes a more efficient system of local government agencies. When determining spheres of influence for cities and special districts, the LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The ~~municipal services review~~ Municipal Service Review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require consideration of infrastructure needs, projected demand from future growth, financing constraints and opportunities, and options for the administration of services.

23. Response to Comment 8-23

The commenter notes that page V-14-4 (Section A[4][c]) of the draft MEIR appears to be incorrect in stating that the Stanislaus County General Plan (County General Plan) does not contain policies on fire safety. The County General Plan does contain fire safety policies that apply to lands under its jurisdiction. However, the intent of the MEIR is to say that the County

General Plan does not have fire safety policies that relate to development within the corporate limits of the City of Modesto.

24. Response to Comment 8-24

Please see Master Response 1.

25. Response to Comment 8-25

Please see Response to Comment 8-11, which addresses this issue.

26. Response to Comment 8-26

The commenter notes that the statement on page V-14-7 (Section A[5][a]) of the draft MEIR is unclear regarding the requirement for a plan for services when annexations are proposed. The Stanislaus LAFCo clarifies its policies regarding annexation proposals presented by petition of landowners and those presented by City Council resolution.

As this statement is written, it is unclear. It is intended to say that the Stanislaus LAFCo will not approve annexations that would result in necessary services being eliminated. The second full paragraph on page V-14-4 of the MEIR is revised to read as follows:

The Stanislaus LAFCo considers the provision of adequate fire service in connection with approval of annexations and the establishment of spheres of influence. Adopted LAFCo policies ~~include the requirement that~~ require that when a local agency submits a resolution of application for a change in organization or a reorganization, a plan for service must be prepared and submitted to the LAFCo by the local agency ~~proposing the being affected by the proposed~~ annexation. The A Plan for Services must include information that the range and level of services currently available within the existing boundaries will be at least maintained in the proposed annexation area. Annexations that reduce the existing levels of service will not be approved by the LAFCo.

27. Response to Comment 8-27

The commenter suggests a revision to the discussion of direct impacts in the Planned Urbanizing Area relative to erosion in funding for the Salida and Stanislaus Consolidated FPDs.

The City declines to make this change. The commenter implies that the City would be in some way liable for increased risk of fire damage should agreements between the City and the affected FPD result in some increase in fire hazard. In any case, CEQA does not create any liability for damages in future fires—see *Cerna v. City of Oakland, et al.* (April 11, 2008) __ Cal.App.4th __ (school district not liable for traffic fatality at intersection analyzed in school EIR). Please see Master Response 1.

28. Response to Comment 8-28

Please see Response to Comment 8-11, which addresses this issue.

29. Response to Comment 8-29

The commenter describes Stanislaus LAFCo policy requiring that existing fire protection service levels of the City be maintained in any territory being annexed to the City. The commenter also describes the information that the Stanislaus LAFCo will request of the City as part of an annexation proposal, including an estimate of the amount of property tax loss to the affected FPDs and their anticipated service cost savings.

This MEIR has been prepared for the City's maintenance update of its UAGP. No specific annexation proposals are being made at this time. The project- and site-specific details related to acceptance by the Stanislaus LAFCo of an annexation proposal will be addressed at such time as specific annexation proposals are made by the City. In addition, the City will undertake a project- and site-specific CEQA review of any proposed annexations at such time as they are proposed. Without a specific annexation proposal, the City cannot reasonably analyze the potential impacts on any affected rural FPD and the measures that will be needed for the City to maintain its Class 2 Insurance Service Office (ISO) rating and to avoid reduction in services.

As discussed in the Modesto Fire Department's *Strategic Plan: Fiscal Year 2008 through 2012* (Modesto Fire Department 2008), the City intends to maintain its existing Class 2 ISO rating across any future annexations. The City's ultimate goal is to achieve a Class 1 ISO rating. ISO ratings range from Class 1 (exemplary public protection) to Class 10 (failure to meet ISO standards).

05/09/2008 FRI 8:20 FAX 2096562180 WRR

001/002

Letter 9



TURLOCK IRRIGATION DISTRICT
WATER RESOURCES & REGULATORY AFFAIRS
333 East Canal Drive
P.O. Box 949
Turlock, CA 95381-0949
FAX (209) 656-2180

FAX MESSAGE

FAX NO: _____ City of Modesto 491-5798

DATE: _____ 5-9-08

TO: Planning Division:

X Cindy van Empel _____

FROM: Arie Vander Pol - Turlock Irrigation District

No. of pages, including cover page: 2 3 4 5

If there are any problems in transmission or you do not receive the number of pages indicated above, please call (209) 883-8384.

Confirming copy to follow

05/09/2008 FRI 8:20 FAX 2098562180 WRRR

002/002

May 9, 2008

TURLOCK IRRIGATION DISTRICT
333 EAST CANAL DRIVE
POST OFFICE BOX 948
TURLOCK, CALIFORNIA 95381
(209) 883-8300

Don Pedro Dam and
Powerhouse

City of Modesto
Community and Economic Development -Planning Division
Attn: Cindy van Empel
P.O. Box 642
Modesto, CA 95353

RE: Draft Master Environmental Impact Report for Amendment to the Urban General Plan

Dear Ms. van Empel:

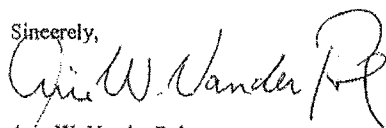
The Turlock Irrigation District (District) acknowledges the opportunity to review and comment on the referenced project. District standards require development occurring within the District's boundary that impacts irrigation and electric facilities, to meet the District's requirements.

The District has no comments concerning irrigation facilities on the above referenced project.

The District's electric utility has no comment concerning this project.

If you have any questions concerning irrigation system requirements or electric utility requirements, please contact me at (209) 883-8384 or Paul Rodriguez at (209) 883-8438 respectively.

Sincerely,



Arie W. Vander Pol
Engineering Technician, Civil
CF: 2008036

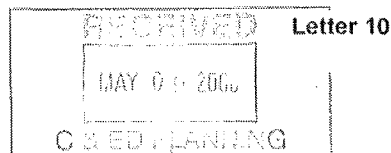
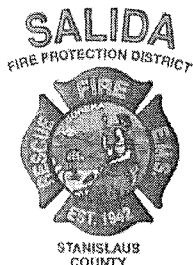


9-1

**J. RESPONSES TO COMMENT LETTER 9—ARIE W. VANDER POL, TURLOCK
IRRIGATION DISTRICT**

1. Response to Comment 9-1

The commenter states that the Turlock Irrigation District (TID) has no comment on irrigation or electric facilities concerning this project. No further response is necessary.



P.O. Box 1335 Salida, CA 95368 • ph: 209.545.0365 • fax: 209.545.3840 • www.salidafire.com

May 7, 2008

City of Modesto
Planning Division
Cindy van Empel, Senior Planner
P.O. Box 642
Modesto, CA 95353

RE: **Comment to Urban Area General Plan and Draft Master
Environmental Impact Report for Amendment to the Urban Area
General Plan**

Dear Ms. Van Empel,

This communication is in regards to the City of Modesto Draft Urban Area General Plan, dated March 2008, and the Draft Master Environmental Impact Report for the Urban Area General Plan Update, dated March 2008 (SCH #2007072023).

The Salida Fire Protection District ("District") has reviewed the documents and offers the following comments: These comments are intended to supplement any comments or concerns raised by the District in any other communications, either oral or written concerning the issues relevant herein.

10-1

1) *(Inserted from the Draft UAGP, dated March 2008)*

1. General Community Facilities and Services Goals

- a. Ensure that services and infrastructure capacities are adequate to meet the needs of the community. This will include requiring that new development projects provide necessary services and infrastructure to meet concurrently or before development occurs.
- b. Ensure that infrastructure plans for the City are updated as needed.
- c. Maintain and encourage regional partnerships for water and wastewater development.
- d. Continue to identify opportunities for the collaborative delivery of police, fire, recreation, and neighborhood services in order to improve service delivery efficiency and effectiveness.

The City's noted goals only refer to the area identified within the UAGP but references the collaborative delivery of "fire" services. The goal to collaborate delivery can be translated in the fire service to auto and mutual aid suppression services in which the City of Modesto and Salida Fire have supported for years. Because fire services in the outskirts of a specific jurisdiction are often best served by the closest available unit and not necessarily a particular agency, it is suggested a response-time analysis be included in the study; noting both the past history as well as the impacts of the proposed plan, both in the UAGP, and in the entire Salida Fire District area.

10-1
cont.

2) *(Inserted from the Draft UAGP, dated March 2008)*

- b. The City's circulation system shall facilitate a rapid response by emergency vehicles and shall accommodate school buses. Factors shall include adequate road widths and corner radii in street designs to ensure that the appropriate fire equipment and school buses can negotiate City streets.

The overall transportation and circulation plan again only refers to the area within the City of Modesto. The District's response times are continually affected by traffic congestion, primarily due to the growth within the City. The communities of Salida and Del Rio that is served by Salida Fire has only experienced minimal growth in the last eight years, yet the District's response times continue to increase, in part because of congestion. Commonly used travel routes by citizens of the City of Modesto such as Highway 99 and Kiernan Ave (outside of the City's boundaries) are greatly impacted, therefore a cumulative study should be completed and mitigation measures noted for all impacted areas, even if it is outside of the area described.

10-2

3) *(Inserted from the Draft UAGP, dated March 2008)*

- m. The City of Modesto may negotiate with affected fire protection districts when an annexation to the City is contemplated and before it has been effected to determine whether the boundary change may result in the erosion of fire protection or other emergency services. Any resulting agreements must be approved by City Council and the governing board of the fire protection district prior to City Council approval of the annexation. Options range from the consolidation of the fire protection district into Modesto City Fire to revenue sharing.

The use of the words "may negotiate ... to determine whether the boundary change may result in the erosion of fire protection" is misleading. In November 2002 when the last EIR for the City's UAGP was commented on by the District, there were similar references to the significant impacts. Erosion of existing services within the District should come as no surprise. We have commented on the issue in every proposed annexation and have even offered to partner in the past, with no success or cooperation from the City. The statement noted within the plan leads one to believe there is question to the impacts that may be considered erosion of services. Stating it very clearly, the proposed area of the

10-3

UAGP will have a drastic impact on the District which currently consists of 42 square miles, potentially to the point where no services will be able to be offered anywhere in the District. The UAGP only mentions "may negotiate", yet there is a known fact of the impact and no policy decision, goal or direction has been given to discuss solutions. The District invites and encourages the City of Modesto to take a proactive approach to start negotiating immediately. Furthermore, the District maintains that agreements designed to insure that the District can continue to provide services, at current levels, must be mandated prior to any annexation and detachment of land from the District.

10-3
cont.

4) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

j. Fire Protection in Annexed Lands

Future annexations under the UAGP may adversely affect the economic viability of fire protection districts, should those districts lose crucial levels of property tax revenues. Should these districts be unable to provide full fire protection services to unincorporated areas as a result, fire losses would increase in those areas.

Without question there are known impacts to the plan; 1) there will be an adverse affect on the District, 2) the District will lose revenues, 3) The District will be unable to offer existing services to the remainder of the unincorporated area, 4) Fire losses will increase and life safety will be jeopardized. Because there are significant impacts noted it is recommended the study further identify mitigating measures. The study lists options (agreements, partnerships, consolidations), yet it is lacking the mandate to achieve policy direction in pursuing solutions. The District maintains that agreements designed to insure the continuation of services, at current levels, must be mandated prior to any annexation and detachment of land from the District.

10-4

5) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

a. Growth-Inducing Impacts

Potential growth-inducing impacts associated with the proposed UAGP update were identified in analyses of the proposed UAGP update. By definition, a general plan is accommodating future growth in a controlled manner. Growth-inducing activities associated with Modesto's Urban Area General Plan include designation of land for future residential, commercial, and industrial development; improvements to and extensions of the City's wastewater treatment system; extension of police and fire services to annexed lands; and extension of water service to lands within the urban area road improvements. An additional growth-inducing impact anticipated to result from the proposed UAGP update is the economic multiplier effect.

Reference is made to the growth-inducing impacts associated within the Plan's boundaries. Although there may only be an obligation to address the planned area, it would appear there is enough evidence regarding fire service impacts to the unincorporated areas to require the impact study to include areas beyond the Plan's boundaries. The District finds it appalling that the city council of the City

10-5

of Modesto and the board of supervisors of Stanislaus County strive to work on "regional" policies and plans to mitigate cumulative impacts, yet choose to deny fire service to the unincorporated area. As services within the County continue to diminish due to annexations into cities, resulting in the loss of revenue to fire districts, there will most certainly be further adverse impacts to the citizens of all local communities. Are the community and policy leaders of today doing due diligence for what we know is the result of the proposed plan?

10-5
cont.

6) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

Increased Demand for Fire Services	Demand on fire services in the Baseline Developed and Redevelopment Areas	Less than significant	Proposed UAGP update policies FS-1 through FS-16	Less than significant
	Demand on fire services in the Planned Urbanizing Area	Less than significant	Proposed UAGP update policies FS-1 through FS-18	Less than significant
	Increased fire risk in areas outside the city limits served by independent fire districts	Significant, if future annexations result in financial insolvency of fire districts	Proposed UAGP update policy FS-18	Less than significant contribution

10-6

An increased fire risk in areas outside the city limits will have an affect on the City of Modesto. Today, mutual aid is used regularly for significant events locally, statewide, and nationally. All agencies within Stanislaus County participate and have offered an improved service to the citizens because of it. As stated, there will not be aid available from neighboring or adjacent agencies because of insolvency. The impacts of such devastation will be significant to the County and should be specifically noted as significant to the City of Modesto. Furthermore, when fire districts fail, due to increased annexations, the City of Modesto will be impacted negatively. Regularly, the District provides mutual aid resources to the City of Modesto and as well is shared visa versa. If and when the District fails, those burdens will fall solely to the City of Modesto.

7) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

When determining spheres of influence for cities and special districts, the LAFCo must conduct a service review of the municipal services provided in an area, as determined by the LAFCo. The municipal services review (MSR) is a comprehensive review of all the agencies that provide the service within the identified area. Typical municipal services include police, fire, sewer, water, and storm drainage services. When conducting the MSR, the LAFCo must prepare a written statement of its determinations with respect to the factors identified in Government Code Section 56430. These factors require the consideration of infrastructure needs, projected demand from future growth, financing constraints and opportunities, and options for the administration of services.

10-7

The EIR notes LAFCO policies in reference to services. It should be mentioned that within the proposed area some services may be better served by the existing agency, due in part to the location of existing fire stations and response times. It would appear to be inefficient and not cost effective to place a new city fire station within close proximity of an existing staffed fire station of another agency. There are examples of such today within the City of Modesto where a responding fire engine drives by a staffed and available fire engine of another agency. Politics aside, to the average citizen it appears to be unnecessary and can be prevented in the future with collaborative solutions. Accordingly, it is the District's position that agreements between cities and affected districts must be in place prior to the approval of annexations and detachments from the districts, such that the districts will be able to continue to provide services at current levels.

10-7
cont.

8) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

2. Study Area for Cumulative Impacts

This analysis will be based on the plan or projection approach to examining cumulative effects, as provided under Section 15130(b)(1)(B) of the State CEQA Guidelines. The pertinent plan used for this purpose is the UAGP. The study area for cumulative impacts on fire services is the City's planning area.

10-8

Although the study area for cumulative impacts is specific to the City's planning area, evidence proves that diminishing services outside the city limits will have an affect on the City's public safety. Therefore, it is recommended the cumulative impact for fire service be expanded and solutions be put into place to mitigate the inevitable negative impacts on districts before annexations are approved.

9) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

Pursuant to California Revenue and Taxation Code Section 99, as part of an annexation under the Cortese-Knox-Hertzberg Act, the annexing City must provide the LAFCo an agreement approved by the affected special district that describes how property taxes collected from the area proposed to be annexed will be split between the city and the special district. LAFCo will memorialize this agreement as part of its proceedings.

10-9

The District has invited the City of Modesto to negotiate a revenue agreement numerous times. To date there have not been any agreements reached. Listing this as an option within the EIR as a potential mitigating measure is important, yet policy must accompany such an option to ensure it takes place.

10) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

The UAGP would involve the expansion of the City's sphere of influence and annexation of currently unincorporated lands. When these lands are annexed to the City, the LAFCo would determine, on a case-by-case basis, the most appropriate means of providing fire service to the annexed lands. In some cases, the annexed lands would be served by the Modesto Fire Department and detached from the County Fire Protection Districts. Detachments would ultimately both reduce the demands on the County districts for fire protection and also reduce the amount of funding received by the districts. The reduced funding could result in indirect impacts on the level of facilities, equipment, and personnel the districts could support. Funding of fire protection by the districts in the face of annexation of portions of their territory is a continuing problem, according to the Countywide Fire Services Municipal Services Review prepared by the Stanislaus LAFCo in March 2007. It states, without being specific, that "[c]ity annexations have eroded the funding base of some of the districts immediately adjacent to them." This report identifies Burbank, Paradise, Industrial, and Salida as fire protection districts that could shrink to the point of being no longer viable as annexations continue. However, because the location and timing of future annexations is unknown, the point in time at which any district would reach such a critical point is speculative and will not be discussed in further detail. (Stanislaus Local Agency Formation Commission 2007.) Since the adoption of the Countywide Fire Services Municipal Services Review, additional information has surfaced indicating that portions of certain fire protection districts could be at risk for erosion of fire protection and emergency services. If those at-risk districts were to become insolvent, some areas might be in danger of reduction of fire protection or certain emergency services.

10-10

Previous reports, as noted in the draft EIR, speak of the cumulative fire service impacts of the proposed plan. In response to the known facts, a solution MUST be offered in the EIR for future fire services affected, regardless of whether they are within the city limits or not. Again, the District is noted at-risk due to the impacts of the plan and without agreements, partnerships, or consolidation, it will become insolvent.

11) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

Cumulative impacts on fire services may occur as a result of future insolvency of some existing rural fire protection districts. The City's Fire Chief and the Fire Chiefs of adjoining rural fire protection districts meet on an as-needed basis to discuss the financial impacts of annexations on the rural fire protection districts and how to prevent the erosion of fire protection and emergency

10-11

As presented, there is a need to meet and negotiate as a result of the impacts. Previous efforts by staff have been made but solutions have not been reached. It is imperative policy is established before any further erosion of existing fire services takes place.

12) *(Inserted from the Draft Master EIR for the UAGP update, dated March 2008)*

Increased Demand for Fire Services: The No-Project Alternative envisions growth by annexation under the 1995 UAGP into areas within the City's sphere of influence that currently are served by independent fire districts. De-annexation of portions of these districts in order to annex the territory to the City may lead to financial insolvency of the districts. In that case, fire protection in areas outside Modesto would be lost, and the risk of fire would be increased greatly. This is a significant and unavoidable impact under the No-Project Alternative.

10-12

The project as identified within this area presents a significant impact, yet is not unavoidable. With the implementation of appropriate city planning and policies, mitigating measures to minimize the impacts could be reached.

10-12
cont.

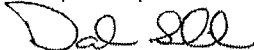
In conclusion, many if not all of the references within the UAGP and the draft EIR affecting the District are symptoms of a much larger regional problem. As proposed, the UAGP only exacerbates the issue and makes future solutions more difficult.

Both documents, the UAGP and the draft EIR for UAGP update, raise the issues but are deficient in analyzing the impacts caused by annexations into the City. The Plan's lack of an analysis and solution to deal with the results of such actions renders the plan inadequate and legally deficient.

The District believes it the responsibility of all parties involved to come together and agree on a long term solution for fire protection services. As was stated earlier, it may not be the sole responsibility of the City of Modesto to be the lead agency for all fire service problems with Stanislaus County, but relating to the UAGP and its effects, the City is the lead agency and must choose through policy direction to be part of the solution. As well, LAFCO must take the lead in facilitating a region-wide policy to insure that fire protection continues in the areas served by the districts affected by annexations.

10-13

Respectfully Submitted,



Dale Skiles, Fire Chief
Salida Fire Protection District

Cc: Thomas Burns, Board of Director
William Ross, District Counsel
Jeff Grover, Board of Supervisor
Stanislaus LAFCO

K. RESPONSES TO COMMENT LETTER 10—DALE SKILES, SALIDA FIRE PROTECTION DISTRICT

1. Response to Comment 10-1

The City recognizes that auto and mutual aid suppression services are important to maintaining fire safety. However, the action being contemplated by the City is adoption of amendments necessary to update the UAGP, not a plan for future fire service. The suggested “response-time analysis” is not a required component of a general plan (as provided in Government Code Section 65302), and the City chooses to plan for future fire service at the Specific Plan level, rather than in its General Plan.

2. Response to Comment 10-2

The commenter is incorrect in stating that the UAGP’s circulation network is limited to the lands within the Modesto city limits. The circulation network described in the UAGP actually includes the entire area within City’s planning area boundary. This includes unincorporated lands adjoining the City. Accordingly, the traffic analysis prepared for the draft MEIR and found in Chapter V, Section 1 of that document examines the UAGP’s direct and cumulative impacts on roads within the planning area, as well impacts on regional facilities. The congestion analysis in the MEIR already provides the analysis that the commenter is requesting.

3. Response to Comment 10-3

Please see Master Response 1 related to fire services. The proposed policy has been revised as suggested by the commenter.

With regard to the level of cooperation from the City, see Response to Comment 13-2.

4. Response to Comment 10-4

The commenter asserts that the UAGP will result in adverse fiscal impacts on the Salida FPD, leading to its insolvency and a loss of fire protection as a result. The Salida FPD requests that agreements to ensure existing levels of service be in place prior to any annexation and detachment of land from the district.

The action now being contemplated by the City is adoption of amendments necessary to update the UAGP. This is not a plan for future fire service, it is not intended to be a detailed agreement over future annexation, and there are no substantive changes to the UAGP land use or circulation elements, as compared to the 2003 UAGP.

The MEIR acknowledges that there are issues relative to the continued viability of the Salida FPD. However, there are existing safeguards in place to avoid the adverse impact that the district fears. As discussed in Response to Comment 8-26, Stanislaus LAFCo policies require that when a local agency submits a resolution of application for a change of organization or reorganization,

a plan for services must also be submitted that shows how existing levels of service will be maintained. State law under Revenue and Taxation Code Section 99 requires the City to negotiate a revenue agreement with the district prior to the LAFCo's approval of an annexation. The LAFCo is empowered to deny an annexation that would jeopardize services (Government Code Sections 56375[a] and 56668). In addition, the City is currently discussing with the Salida FPD and the Stanislaus Consolidated FPD solutions to this problem. Given the state of these discussions, including specific UAGP language beyond that provided in Policies V.K.2(m) and VI.D.1(c)(5) would be premature.

5. Response to Comment 10-5

The commenter requests that the MEIR discuss growth-inducing impacts beyond the City's planning area. The County regulates unincorporated lands. Current County policy is to encourage new development to locate within cities and to minimize the conversion of agricultural land (see Comment 12-7 in the letter from the Stanislaus County Environmental Review Committee). The availability of land within the County for future urbanization is not under the City's control and would be contrary to current County policies; therefore, it is not a reasonably foreseeable result of buildout of the UAGP. Furthermore, except for water and sewer services, which extend beyond the City's boundaries to portions of Turlock, Ceres, and discrete unincorporated communities, the City does not and would not provide urban improvements outside of its city limits. Longstanding City policy has been to require an advisory vote prior to extending sewer service to areas projected for growth in its General Plan. No provisions are made to extend sewer service beyond the UAGP's planning boundaries. For these reasons, the potential for the UAGP to induce growth on lands outside the City's planning area is limited. The impacts on fire services to which the commenter refers are most appropriately addressed in the cumulative impact section of the MEIR and will be addressed specifically in Specific Plan EIRs at such time as those documents are prepared.

6. Response to Comment 10-6

Please see Master Response 1 related to fire services. The City recognizes the need for auto and mutual aid suppression services in order to maintain fire safety. See Response to Comment 10-4 regarding safeguards to avoid a reduction in fire protection.

7. Response to Comment 10-7

The commenter states that the Salida FPD's position is that agreements between cities and affected special districts must be in place prior to approval of annexations and detachments from those districts. The City does not disagree with this statement. As stated earlier, the City is meeting with the affected fire districts to work out a mutually agreeable approach to annexation. Further, the Stanislaus LAFCo requires such agreements before it can approve an annexation or detachment.

8. Response to Comment 10-8

The commenter requests that the cumulative impact analysis be expanded. Please see Response to Comment 10-4 regarding the effects of the UAGP on fire services. Safeguards exist that will avoid the loss of services outside the City limits. Therefore, future annexations would not result in adverse effects on fire services.

9. Response to Comment 10-9

The commenter states that the UAGP must include a policy requiring the City to negotiate a revenue agreement with the Salida FPD.

Negotiating an agreement is required by state law under Revenue and Taxation Code Section 99 prior to the LAFCo's approval of an annexation, as referred to in the MEIR. The UAGP will reflect this requirement in two of its policies. See Master Response 1 regarding UAGP Policies V.K.2(m) and VI.D.1(c)(5).

10. Response to Comment 10-10

The commenter states that the MEIR must provide a solution for the future fire services that might be affected by future annexations.

Proposed UAGP Policies V.K.2(m) and VI.D.1(c)(5) allow the City to negotiate agreements with the affected districts prior to annexation. The City is currently discussing potential solutions with the affected fire districts. In combination with existing safeguards in the form of Stanislaus LAFCo policy and state law, the results of the ongoing discussions will provide the solution, as discussed in Response to Comment 10-4.

11. Response to Comment 10-11

The commenter states that it is imperative to establish a policy to avoid adverse fiscal impacts on the fire districts that would lead to a reduction of fire protection services. Please see Response to Comment 10-10.

12. Response to Comment 10-12

The commenter asserts that the significant impact on fire service identified for the No-Project Alternative is not unavoidable, as the MEIR states.

The No-Project Alternative is built upon the assumption that none of the policies proposed to be added to the UAGP will be added. The analysis takes the conservative view that without Policies V.K.2(m) and VI.D.1(c)(5), the safeguards under Stanislaus LAFCo policy and statute would be insufficient to avoid all fiscal losses.

13. Response to Comment 10-13

The commenter asserts that both the UAGP and the MEIR are deficient in analyzing the impacts on the Salida FPD that would be caused by future annexations by the City.

Please see Master Response 1, Response to Comment 10-4, and Response to Comment 10-10. The UAGP contains policies intended to avoid fiscal impacts on the fire districts. The MEIR discusses the potential impacts, mitigating policies contained in the UAGP, and existing safeguards in Stanislaus LAFCo policy and statute.



**STANISLAUS COUNTY
AIRPORT LAND USE COMMISSION**

1010 Tenth Street, Suite 3400
Modesto, California 95354

Letter 11



May 8th, 2008

Cindy van Empel
City of Modesto
C&ED/Planning Division
Tenth Street Place/Third Floor
P.O. Box 642
Modesto, CA 95353

**SUBJECT: CITY OF MODESTO - NOTICE OF AVAILABILITY AND PUBLIC COMMENT
MEETING DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR
AMENDMENT TO THE URBAN AREA GENERAL PLAN**

Thank you for providing the Stanislaus County Airport Land Use Commission with the opportunity to comment on the proposed project.

Project Description

The City of Modesto has prepared a Draft Environmental Impact Report for a proposed Amendment to the Urban Area General Plan.

Airport Land Use Comments

The proposed project falls within the planning area boundary of the Modesto City-County Airport identified in the Stanislaus County Airport Land Use Commission (ALUC) Plan. Within this Planning Area boundary, there are currently a number of land uses where noise and safety conflicts exist. Specific details on the types of uses and the locations of these conflicting uses can be found in the ALUC Plan. The purpose of the consistency requirements in the ALUC Plan is to minimize or eliminate development near the airport which would be subject to ongoing aircraft noise or safety hazards in the event of a crash. In reviewing the documents provided by the City of Modesto, it does not appear that these conflicts have been adequately addressed and the ALUC has the following comments:

1. The City of Modesto is strongly encouraged to develop and include, as part of their General Plan, "Airport Safety Zones" for the northern-half of the airport. These Safety Zones shall be consistent with the Airport Safety Zones developed by the City of Ceres on the southern-half of the airport and based on the guidelines established by the California Department of Transportation, Division of Aeronautics - Airport Planning Handbook.

11-1

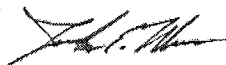
May 8th, 2008
Modesto UAGP
Page 2

2. Within the ALUC Planning Area boundary, the City of Modesto shall restrict building heights for airspace protection, in accordance with Federal Aviation Regulations - Part 77.

11-1
cont.

An electronic copy of the Airport Land Use Commission Plan may be obtained by contacting me at (209) 525-6330 and the plan is also available on the County's website. If you have any questions regarding these comments, please contact me at your earliest convenience.

Sincerely,



Joshua Mann
Associate Planner

cc: Raul Mendez, Environmental Review Committee
Jerome Thiele, Acting Airport Manager, Modesto City-County Airport

(I:\ALUC\CEQA Referrals\City of Modesto\Urban Are Update General Plan.wpd)

L. RESPONSES TO COMMENT LETTER 11—JOSHUA MANN, STANISLAUS COUNTY AIRPORT LAND USE COMMISSION

1. Response to Comment 11-1

The Stanislaus County Airport Land Use Commission (ALUC) notes that the UAGP falls within the boundaries of the planning area for the Modesto City-County Airport, as set forth in the Stanislaus County Airport Land Use Commission Plan. Although its comments are aimed at the proposed UAGP amendment, we have provided a response in this document.

The ALUC remarks that there are a number of land uses in this area where noise and safety conflicts with the airport exist. The ALUC suggests that the City should develop and include as part of the UAGP “Airport Safety Zones” for the northern half of the airport. Further, it recommends that the City include restrictions on building heights within the airport planning boundary.

The City is undertaking a “maintenance” amendment to the UAGP that will bring the UAGP into conformance with the City’s adopted policies and reflect state and local land use regulations that have been adopted since the 2003 update to the UAGP. By direction of the City Council, and as stated in the project objectives on page III-7 of the draft MEIR, this amendment is not intended to make comprehensive changes to the UAGP or its policies. In particular, no changes in current land use designations are being proposed. The draft UAGP largely reflects the land use pattern of the existing, adopted UAGP.

The City intends to begin a comprehensive amendment of the UAGP after it adopts this maintenance update. The comprehensive amendment will examine such issues as the format of the UAGP and its contents. Consideration of new land use designations in the area north of the airport and limitations on building heights will be among the land use policies discussed in the process of comprehensively updating the UAGP.

The Modesto City-County Airport is currently preparing an update of its 14 CFR [Code of Federal Regulations] Part 150 Noise Compatibility Study Update (Part 150 Study), which will include some land use recommendations and updated Airport Safety Zones. This effort is independent of the UAGP amendment, which, as noted in the project description for the draft MEIR for the UAGP update, does not include either substantial land use or transportation changes. Nonetheless, the airport noise information provided by the Part 150 Study has been included in the noise impact analysis for this MEIR. At this time, airport staff and the Part 150 Study consultant anticipate proposing a future general plan amendment to include policies that the City Council may choose to adopt. The ALUC may wish to ensure its comments on this issue are addressed adequately in the Part 150 Study.



Letter 12

CHIEF EXECUTIVE OFFICE
Richard W. Robinson
Chief Executive Officer

Patricia Hill Thomas
Chief Operations Officer/
Assistant Executive Officer

Monica Nino-Reid
Assistant Executive Officer

Stan Risen
Assistant Executive Officer

1010 10th Street, Suite 6800, Modesto, CA 95354
P.O. Box 3404, Modesto, CA 95353-3404
Phone: 209.525.6333 Fax 209.544.6226

STANISLAUS COUNTY ENVIRONMENTAL REVIEW COMMITTEE

May 9, 2008

Cindy van Empel, Senior Planner
City of Modesto - Planning
PO Box 642
Modesto, CA 95353

**SUBJECT: ENVIRONMENTAL REFERRAL – CITY OF MODESTO – NOTICE OF
AVAILABILITY AND PUBLIC COMMENT MEETING DRAFT MASTER
ENVIRONMENTAL IMPACT REPORT FOR AMENDMENT TO THE
URBAN AREA GENERAL PLAN**

Ms. van Empel:

The Stanislaus County Environmental Review Committee (ERC) has reviewed the subject project and has determined that it may have a significant effect on the environment.

The following comments are provided for consideration and proper mitigation and respond directly to sections detailed in the City of Modesto's Draft Master Environmental Impact Report (MEIR) for Amendment to the Urban General Plan. The comments reflect County policy and changes in the project's environmental setting that may result in potentially significant environment impacts when assessed as part of the project.

Fire Protection/Emergency Services

The MEIR recognizes a potential negative affect to fire protection and emergency services and an adverse cumulative affect to the economic viability of fire protection districts should those districts lose crucial property tax revenues as a result of annexation. However, adequate mitigation measures for these negative impacts are not identified.

12-1

**CITY OF MODESTO – NOTICE OF AVAILABILITY AND PUBLIC COMMENT
MEETING DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR
AMENDMENT TO THE URBAN AREA GENERAL PLAN**

Page 2

The following mitigation measures should be included:

The City of Modesto shall prepare an economic impact analysis of any proposed annexation to the City and detachment from a fire protection district. The analysis shall identify viable alternatives for the district(s) that includes mandatory measures to ensure the sustainability of fire services in unincorporated areas. These measures shall include but not be limited to:

- Consolidation of the entire affected district(s) into the City of Modesto Fire Department.
- The City of Modesto shall contract with the affected fire district to provide services to the non-detached portion for the district's remaining income.
- Implementation of a tax sharing agreement between the City and the affected district with a built in inflation factor.

12-1
cont.

Additionally, any annexation of land from the unincorporated area of the County into the City of Modesto will have a negative economic impact upon the Less Than Countywide Fire Tax which is collected in all areas of the County, except Modesto and Turlock. That tax revenue is used exclusively to provide non-suppression services to support all fire agencies in Stanislaus County, as directed by the Fire Authority. Those services include fire investigations, fire prevention, fire training, fire communications and administration and finance support. Those services are currently provided under five-year contracts. Any reduction in the tax revenue will have a negative impact upon those services, and will therefore affect every fire agency in Stanislaus County. In order to mitigate the negative impact upon the fire service in this County, any annexation should include a mitigation measure to keep the Less Than Countywide Fire Tax intact with a factor for inflation.

12-2

Airport Land Use Commission

The ERC attaches hereto and incorporates herein by reference comments/conditions from the Stanislaus County Airport Land Use Commission dated May 8, 2008.

See
Letter
11

Salida Now Initiative

The Urban Area General Plan (UAGP) does not reflect the August 7, 2007 Board of Supervisors adoption of the Salida Area Planning, Road Improvement, Economic Development and Farmland Protection Initiative (a.k.a Salida Now Initiative). The stated purpose and intent of the City of Modesto's Salida Community Plan (SPC) land use designation is:

12-3

"If the Salida Comprehensive Planning District is annexed to the City of Modesto, the City does not propose to change any land use directions from those established by Stanislaus County. Therefore, the Salida

**CITY OF MODESTO – NOTICE OF AVAILABILITY AND PUBLIC COMMENT
MEETING DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR
AMENDMENT TO THE URBAN AREA GENERAL PLAN**

Page 3

Community Plan, as adopted by Stanislaus County, will continue to guide growth and development for this area, even upon annexation to the City."

The location criteria for the UAGP SPC land use designation is identified as precisely the same boundaries as for the Salida Community Plan adopted by Stanislaus County as of January 1, 1995. Stanislaus County did not adopt a Salida Community Plan in 1995. Prior to the Salida Community Plan Update adopted in 2000, the Salida Community Plan had last been adopted in 1988. The Salida Community Plan Update adopted in 2000 was invalidated by the courts as correctly referenced in the UAGP. The UAGP SPC boundaries are not consistent with the boundaries of the 1988 Salida Community Plan, the invalidated 2000 Salida Community Plan or the 2007 Salida Now Initiative.

12-3
cont.

The adopted 2007 Salida Now Initiative has established both urban type General Plan land use designations and zoning for the rural areas surrounding the existing built community of Salida. This zoning may be used to establish expected development summaries for both dwelling units and jobs as part of the UAGP Exhibit III-I: Comprehensive Planning Districts Summary. The adopted land use designations and zoning may also have an impact on the UAGP Stanislaus River Comprehensive Planning District.

Salida Comprehensive Planning District

Exhibit III-19: Salida Comprehensive Planning District (SCPD) of the UAGP does not provide a discussion regarding water service within the boundaries of the SCPD. The Salida Sanitary Sewer District provides only sewer service within a portion of the UAGP's identified SCPD area.

12-4

Section 6(a) - Focused Environmental Impact Report of the UAGP SCPD Exhibit III-19 identifies the County's traffic model, which assumes development of the Salida Community Plan at 2015, as the basis for traffic modeling for the SCPD in the Master Environmental Impact Report (MEIR). The UAGP and the MEIR need to reflect adoption of the Salida Now Initiative. The Salida Now Initiative incorporates a new expressway connecting Hwy 99 to Dale Road. The new expressway will connect to HWY 99 at the existing Hammett Road interchange.

12-5

Incorporation of the Hammett Road expressway may impact the MEIR traffic analysis for Dale Road that is proposed to be amended from a minor arterial to a principle arterial.

12-6

Agriculture

The Agricultural Resources Policies of the UAGP state: "The City shall encourage the County to retain agricultural uses on lands surrounding the General Plan area and on lands within the General Plan area pending their annexation to the City or development

12-7

**CITY OF MODESTO – NOTICE OF AVAILABILITY AND PUBLIC COMMENT
MEETING DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR
AMENDMENT TO THE URBAN AREA GENERAL PLAN**

Page 4

by mutual agreement with the County." In order to protect agriculture at the urban/rural interface, the City may consider requiring new development to provide sufficient buffer areas. Currently, City policy only suggests potential measures the proponent may incorporate. The City is encouraged to work with the County to developing a defined buffer zone standard adequate to reduce the potential for conflicts with the existing agricultural use. Stanislaus County has adopted Buffer and Setback Guidelines as part of the 2007 Stanislaus County Agricultural Element update.

12-7
cont.

The Stanislaus County Agricultural Element Policies referenced on pages V-4-6 - V-4-7 do not reflect the Agricultural Element Update adopted in December of 2007.

12-8

In accordance with Policy 2.17 of the Stanislaus County Agricultural Element, the County encourages all cities to adopt agricultural conservation policies and ordinances which are consistent with County policies or ordinances in order to undertake an integrated, comprehensive Countywide approach to farmland conservation. Current County policy is to require replacement of agricultural land at a 1:1 ratio with agricultural land of equal or greater quality located in Stanislaus County when mitigation is required.

12-9

Sphere of Influence

Item 1 of Section U - Review of Applications Outside the City Limits of the City of Modesto of Chapter VIII - General Plan Implementation of the UAGP states:

- "1. Within both the City of Modesto's Sphere of Influence and outside the Sphere but within the General Plan limits, the County shall apply City standards for development, when the County's and City's development standards conflict."

12-10

In accordance with the City/County agreement, City development standards may only be applied by the County to discretionary projects located within the City's Sphere of Influence.

Noise

Section 4 of the Environmental Setting provided in Section Three of the MEIR addresses the existing physical setting in the study area by providing a description on the major types of noise sources in the City of Modesto. The Industry section on page V-3-4 references the Proctor and Gamble facility, which is now the G-3 facility, located in the unincorporated area of the County within the City of Ceres Sphere of Influence. The facility site has been expanded with the addition of new buildings and uses. Some of the new buildings have resulted in the removal of orchards referenced in the MEIR.

12-11

Section C - Stanislaus County Policies of the MEIR, V-3-10, incorrectly references the Stanislaus County Noise Element as having been comprehensively revised in 2004. The County Noise Element was updated in April of 2006 in conjunction with an update

12-12

**CITY OF MODESTO – NOTICE OF AVAILABILITY AND PUBLIC COMMENT
MEETING DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR
AMENDMENT TO THE URBAN AREA GENERAL PLAN**

Page 5

of the Circulation Element. All citations to the Stanislaus County General Plan listed in Chapter IX of the MEIR should be reviewed for accuracy.

12-12
cont.

Figure VII-2 - Noise Contours of the MEIR does not appear to reflect the alignment shift of Kiernan Avenue to the north.

12-13

Infrastructure Financing

The City is proposing modification to policies related to infrastructure financing, annexation, and sphere of influence development. The County encourages continued dialog with the City in relation to financing infrastructure improvements within the County islands. The County suggests a clarification to one or more of these policies to require that isolated pockets within existing islands not be annexed until an overall infrastructure financing and construction plan is developed for the entire affected island.

12-14

Stanislaus County General Plan

In general, the City of Modesto may wish to consider directly incorporating specific policy language of the Stanislaus County General Plan which is identified in the MEIR as 'policies which avoid impact' as mitigation measures. A general reference to the adopted policies of the County General Plan does not ensure the City has the full ability to implement such policies and to ensure any changes to County policies, which are outside of the City's control, do not impact the integrity of the City's MEIR.

12-15

The ERC appreciates the opportunity to comment on this project.

Sincerely,



Raul Mendez, Senior Management Consultant
Environmental Review Committee

cc: ERC Members

Attachment



May 8th, 2008

Cindy van Empel
City of Modesto
C&ED/Planning Division
Tenth Street Place/Third Floor
P.O. Box 642
Modesto, CA 95353

**SUBJECT: CITY OF MODESTO - NOTICE OF AVAILABILITY AND PUBLIC COMMENT
MEETING DRAFT MASTER ENVIRONMENTAL IMPACT REPORT FOR
AMENDMENT TO THE URBAN AREA GENERAL PLAN**

Thank you for providing the Stanislaus County Airport Land Use Commission with the opportunity to comment on the proposed project.

Project Description

The City of Modesto has prepared a Draft Environmental Impact Report for a proposed Amendment to the Urban Area General Plan.

Airport Land Use Comments

The proposed project falls within the planning area boundary of the Modesto City-County Airport identified in the Stanislaus County Airport Land Use Commission (ALUC) Plan. Within this Planning Area boundary, there are currently a number of land uses where noise and safety conflicts exist. Specific details on the types of uses and the locations of these conflicting uses can be found in the ALUC Plan. The purpose of the consistency requirements in the ALUC Plan is to minimize or eliminate development near the airport which would be subject to ongoing aircraft noise or safety hazards in the event of a crash. In reviewing the documents provided by the City of Modesto, it does not appear that these conflicts have been adequately addressed and the ALUC has the following comments:

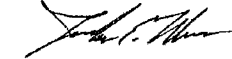
1. The City of Modesto is strongly encouraged to develop and include, as part of their General Plan, "Airport Safety Zones" for the northern-half of the airport. These Safety Zones shall be consistent with the Airport Safety Zones developed by the City of Ceres on the southern-half of the airport and based on the guidelines established by the California Department of Transportation, Division of Aeronautics - Airport Planning Handbook.

*May 8th, 2008
Modesto UAGP
Page 2*

2. Within the ALUC Planning Area boundary, the City of Modesto shall restrict building heights for airspace protection, in accordance with Federal Aviation Regulations - Part 77.

An electronic copy of the Airport Land Use Commission Plan may be obtained by contacting me at (209) 525-6330 and the plan is also available on the County's website. If you have any questions regarding these comments, please contact me at your earliest convenience.

Sincerely,



Joshua Mann
Associate Planner

cc: *Raul Mendez, Environmental Review Committee
Jerome Thiele, Acting Airport Manager, Modesto City-County Airport*

(I:\ALUC\CEQA Referrals\City of Modesto\Urban Are Update General Plan.wpd)

**M. RESPONSES TO COMMENT LETTER 12—RAUL MENDEZ, STANISLAUS
COUNTY ENVIRONMENTAL REVIEW COMMITTEE**

1. Response to Comment 12-1

Please see Master Response 1 related to fire services.

2. Response to Comment 12-2

As noted in Master Response 1, a specific environmental review is conducted for each area the City considers annexing. The financial effect on the affected FPD of each detachment from an FPD varies, depending upon the financial resources of the FPD and the size of the annexation area. Not all detachments/annexations will result in a secondary physical impact within the FPD as a result of the primary fiscal impact on the FPD. CEQA is focused on physical impacts only.

3. Response to Comment 12-3

Please see Response to Comment 8-9, which addresses this question.

4. Response to Comment 12-4

The commenter notes that the discussion of the Salida CPD does not discuss water service within the CPD boundaries.

The commenter is correct that the Salida Sanitary Sewer District provides only sewer service within a portion of the Salida CPD. The discussion in the UAGP is not intended to be a comprehensive assessment of all urban services, but simply a recognition of existing services provided by jurisdictions other than the City.

Furthermore, water service will be the responsibility of the developers of the County's Salida Community Plan. As the agency with land use authority over the Salida Community Plan, the County will be responsible for implementing the provisions of that plan, including the provision that states "[a]n adequate water supply must be secured and demonstrated for development in accordance with applicable law." An evaluation of the water supply is required by state law prior to the land use decision. The water supply evaluation was therefore required prior to the Board of Supervisors' decision on the Salida Community Plan in 2007.

The City does not intend to annex Salida and therefore would not have responsibility for land use decisions or for providing water. With adoption of the Salida Community Plan by the County, there may be no need for the City to include the Salida CPD in the UAGP at all. However, that important land use policy decision is being reserved for consideration during the comprehensive update of the UAGP.

5. Response to Comment 12-5

The commenter notes that the County's Salida Community Plan proposes a new expressway connecting SR 99 to Dale Road, beginning at the Hammett Road interchange. They request that the new expressway shown in the Salida Community Plan should be reflected in the UAGP and MEIR.

The land use and transportation portions of the new Salida Community Plan were inadequately described to allow their inclusion in the Stanislaus Council of Governments (StanCOG) model or in the UAGP, and funding has not been identified that would make the proposed expressway a realistic project. The proposed new expressway is conceptually identified in the Salida Community Plan component of the County General Plan and is proposed for inclusion in the California Transportation Commission's State Transportation Improvement Plan (STIP). It is the western part of a 7.7-mile-long expressway connecting SR 99 to SR 120 (North County Corridor Project). StanCOG's Regional Transportation Plan (RTP) and Regional Transportation Improvement Plan (Stanislaus Council of Governments 2008a, 2008b) identify the North County Corridor Project as a six-lane limited-access expressway and have programmed \$6.2 million for fiscal year 2008/2009 toward the cost of preliminary engineering and preparing environmental documents. The March 2008 *Preliminary Design Report to Request Programming for Project Approval and Environmental Document Phase in the 2008 STIP* for the North County Corridor Project (Stanislaus Council of Governments 2008c) estimates the current cost of the full alignment to be \$1.2 billion to \$1.4 billion.

There is no current source of funding to pay for the project. Presumably, the County will establish assessments and/or impact fees within the Salida Community Plan area for a portion of the costs. However, the viability of the project largely hinges on the availability of substantial money from the County's transportation sales tax measure, which is expected to be on the November 2008 ballot. If passed, the 20-year, 0.5% sales tax increment would raise approximately \$700 million. Approximately 49% of the sales tax proceeds (\$343 million) would be split among three new east-west traffic corridors (including about \$117 million for the North County Corridor). This funding would be used to leverage state and federal funds sufficient to cover the rest of the costs of the proposed expressways. Inclusion of the expressway in the STIP would allow the County to compete for state and federal funding.

The North County Corridor Transportation Expressway Authority (a joint powers authority) has been created to coordinate funding for the project. Members include the County and the Cities of Modesto, Oakdale, and Riverbank. Caltrans and StanCOG are also represented as non-voting members.

If the proposed transportation tax fails, on the other hand, there would be no local match against which to leverage state or federal funding, and construction of the North County Corridor would be unlikely to occur. Although this expressway is identified on the Salida Community Plan, its high cost would make it unlikely to be built.

The proposed expressway is not currently included in the StanCOG regional traffic model. However, the *Preliminary Design Report to Request Programming for Project Approval and Environmental Document Phase in the 2008 STIP* for the North County Corridor Project includes estimates of traffic on nearby roads in 2030, should the expressway be built. The findings of the Preliminary Design Report are reproduced below for informational purposes:

a. Traffic Forecasts

The traffic analysis prepared for this project evaluates future (2030) operations on the North County Corridor and its effect on the parallel roadways by analyzing their operations both with and without the corridor improvements. The regional implications of the corridor improvements are evaluated by examining the measures of effectiveness (MOEs) of vehicle miles of travel (VMT), vehicle hours of travel (VHT), and vehicle hours of delay (VHD) both with and without the project. The StanCOG 2004 RTP travel demand model was the primary tool used in this traffic evaluation.

To ensure that an eight-lane facility is fully warranted and to avoid overstating the benefits of the project, this study assumed the project was a four-lane Class B expressway, with the portion between Tully Road and Albers Road as a six-lane Class B expressway. These assumptions are consistent with the traffic analysis assumptions used for the County General Plan except for the project. The project was included as an eight-lane Class A expressway in the County General Plan traffic analysis.

The project is anticipated to carry between 14,000 and 76,000 ADT, depending on location. Traffic volumes on SR 108 through the City of Riverbank are not anticipated to drop with the project; however, traffic volumes on SR 108 through the City of Oakdale are anticipated to drop between 2% and 26%, depending on location. With the project, traffic volumes on Kiernan Avenue and Pelandale Avenue between SR 99 and Tully Road are anticipated to drop by about 55% and 5%, respectively.

The project is anticipated to operate at Level of Service (LOS) D, E, or F between SR 99 and Claus Road and LOS B or better between Claus Road and SR 108. Traffic shifts caused by the project are not anticipated to degrade the LOS at any roadways. Traffic diverting from nearby roadways to the project will improve the LOS on those roadways. Locations that would improve with the project are listed below:

- **Kiernan Avenue between SR 99 and Tully Road:** LOS D to LOS B
- **Pelandale Avenue between SR 99 and Tully Road:** LOS D to LOS C
- **SR 108 east of Yosemite Avenue:** LOS C to LOS B
- **Yosemite Avenue south of SR 108:** LOS F to LOS E

Regional MOEs were calculated to determine the impacts of the project from a regional perspective. Table IX-2 below summarizes the daily area-wide VMT, VHT, and VHD with and without the project. The following is a brief description of VMT, VHT, and VHD:

- **VMT** is a measure of the total vehicle miles traveled by all vehicles
- **VHT** is a measure of the total hours traveled by all vehicles
- **VHD** is the amount of total delay incurred as a result of congestion

Table IX-2. Year 2030 Project vs. No Project Comparison for the Project Area

Measure	Project	No Project	Difference (% Difference)
Daily VMT	4,143,690	4,156,400	-12,710 (-0.3%)
Daily VHT	108,318	115,495	-7,177 (-6.2%)
Daily VHD	16,731	23,114	-6,383 (-27.6%)
Source: Fehr & Peers 2008 (as cited in StanCOG 2008c).			

As shown in Table IX-2, the project would result in a small reduction of VMT and VHT and a substantial reduction (more than 25%) in VHD when compared to the no-project scenario.

The SR 99/Hammett Road traffic study identified the potential need for grade separation (interchanges) along Hammett Road at Pirrone Road, Stoddard Road, and Dale Road. For traffic modeling purposes, the study assumed Hammett Road would be a 10-lane Class A expressway (five lanes in each direction) from SR 99 to Kiernan Avenue. However, based on the projected AM and PM peak hour traffic volumes, Hammett Road could be designed as an eight-lane Class A expressway and provide acceptable LOS C conditions. Table IX-3 summarizes the LOS results on Hammett Road based on the highest projected volume in the AM and PM peak hours.

Table IX-3. Year 2035 LOS Results on Hammett Road Assuming Eight-Lane Class A Expressway

Peak Hour	Direction	Volume	Capacity	V/C	LOS
AM	Westbound	4,112	6,000	0.69	C
PM	Eastbound	4,253	6,000	0.71	C/D
Sources: 2035 Traffic Forecasts Results for State Route 99/Hammett Expressway Project Study Report (January 10, 2008) and Fehr & Peers 2008 (as cited in StanCOG 2008c).					

It is important to note that the traffic projections from the SR 99/Hammett Road traffic study indicate the need for higher capacity on the North County Corridor (between SR 99 and Kiernan Avenue) than the traffic projections from the 2004 StanCOG RTP model. One main reason for the difference is that the 2004 StanCOG RTP model traffic projections are for 2030, while the SR 99/Hammett Road traffic study projections are for 2035. Another reason is that the SR 99/Hammett Road traffic study projections include traffic from the recently proposed Salida Community Plan, which was not available when the 2004 StanCOG RTP model was developed.

As stated earlier, the objective of the maintenance amendments to the UAGP is to include revisions necessary to reflect changes in local, regional, and state regulations and programs. As stated in the project objectives on page III-7 of the draft MEIR, the City

does not intend to make substantial amendments to its land use diagram or to its Circulation Element. Therefore, it will consider the proposed expressway in the comprehensive update to be undertaken in the near future. At that time, the results of the November 2008 transportation sales tax vote will be known.

6. Response to Comment 12-6

The commenter notes that the County's Salida Community Plan proposes a new north-south expressway along Hammett Road and requests that the new expressway shown on the Salida Community Plan be reflected in the MEIR traffic analysis.

The proposed new expressway is part of the County General Plan. While the North County Corridor has been studied at a preliminary level, the same is not true of the north-south expressway along the Hammett Road alignment. This expressway is not being proposed for inclusion in the STIP and therefore would be funded solely from local sources, which have not been identified. This expressway is not included in the adopted StanCOG RTP or the StanCOG traffic model.

The Hammett Road expressway is located along the western boundary of the Salida Community Plan and would primarily provide access to Salida from the SR 99/Hammett Road interchange. It would not be expected to carry traffic to or from Modesto, and it would not be expected to influence Modesto traffic patterns in any substantial way. There is no timetable for construction of the expressway, and no cost estimate or financing plan has been put into place. Accordingly, there is no reasonable need to include it in the MEIR's traffic analysis.

As stated earlier, the objective of the maintenance amendments to the UAGP is to include revisions necessary to reflect changes in local, regional, and state regulations and programs. The City does not intend to make substantial amendments to its land use diagram. Therefore, it will consider the proposed expressway in the comprehensive update to be undertaken in the near future if circumstances warrant.

7. Response to Comment 12-7

The UAGP contains a policy regarding buffers protecting agricultural lands. Policy VII-D(4) reads as follows:

4. Agriculture Policies—Planned Urbanizing Area

The following policies apply to new development proposed in the Planned Urbanizing Area:

- a. The City will not annex agricultural land unless urban development consistent with the General Plan has been approved by the City.
- b. The City shall support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.
- c. The City shall encourage the County to retain agricultural uses on lands surrounding the General Plan area and on lands within the General Plan area pending their annexation to the City or development by mutual agreement with the County.

- d. Where necessary to promote planned City growth, the City shall encourage development of those agricultural lands that are already compromised by adjacent urban development or contain property required for the extension of infrastructure or other public facilities, before considering urban development on agricultural lands that are not subject to such urban pressures.
- e. For any subsequent project that is adjacent to an existing agricultural use, the project proponent may incorporate measures to reduce the potential for conflicts with the agricultural use. Potential measures to be implemented may include the following:
 - (1) Include a buffer zone of sufficient width between proposed residences and the agricultural use.
 - (2) Restrict the intensity of residential uses adjacent to agricultural lands.
 - (3) Inform residents about the possible exposure to agricultural chemicals.

At its meeting on June 24, 2008, the City Council approved a work program to develop policies to mitigate the loss of agricultural lands. The preliminary schedule shows City Council consideration of proposed policies in late 2008 or early 2009.

8. Response to Comment 12-8

The commenter notes that the County Agriculture Element was amended in December 2007 and is not reflected in the policies described on pages V-4-6 and V-4-7 of the draft MEIR. The commenter is correct. The policies in the MEIR reflect those in effect prior to the December 2007 amendment because the amendment is being litigated. Until the litigation is complete, only the previously adopted policies are in effect. However, the intent of the County Agriculture Element has not changed substantially, and many of the policies listed in the MEIR have been carried over into the new element.

In order that the MEIR will reflect the current County policies relative to agricultural protection and the minimization of conflicts between agricultural uses and other land uses, Section A(4)(d)(2) of Chapter V, Section 4 of the MEIR is revised to read as follows:

- AL-4:** The County shall continue to implement its Right-to-Farm Ordinance. (County General Plan, Agricultural Element, Policy 1.940, Implementation Measure 1)
- AL-5:** The County shall protect agricultural operations from conflicts with non-agricultural uses by requiring buffers between proposed non-agricultural uses and adjacent agricultural operations. (County General Plan, Agricultural Element, Policy 1.1044)
- AL-6:** ~~Setbacks from agricultural areas shall be established to minimize adverse impacts of adjacent uses on agriculture.~~ The County shall require buffers and setbacks for all discretionary projects introducing or expanding non-agricultural uses in or adjacent to an agricultural area consistent with the guidelines presented in Appendix "A" of the Agricultural Element. (County General Plan, Agricultural Element, Policy 1.10, Implementation Measure 142)
- AL-7:** To reduce development pressures on agricultural lands, higher density development and infilling shall be encouraged ~~in urban and built up areas of the County.~~ (County General Plan, Agricultural Element, Policy 2.43)

- AL-8:** To the greatest extent possible, development shall be directed away from the County's most productive agricultural areas. (County General Plan, Agricultural Element, Policy 2.54)
- AL-9:** The County shall encourage regional coordination of planning and development activities for the entire Central Valley. New areas for urban development (as opposed to expansion of existing areas) shall be limited to less productive agricultural areas. (County General Plan, Agricultural Element, Policy 1.22 2.5)
- AL-10:** Agricultural lands restricted to agricultural use shall not be assessed to pay for infrastructure needed to accommodate urban development. (County General Plan, Agricultural Element, General Plan Agricultural Element, Policy 2.6)
- AL-11:** Proposed amendments to the General Plan Diagram that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they are consistent with the County's conversion criteria. (County General Plan, Agricultural Element, Policy 2.7)
- AL-12:** The County recognizes the desire right of cities and unincorporated communities ~~eties~~ to grow and prosper and shall not oppose reasonable requests consistent with city and county agreements to expand, spheres of influence of cities or community services districts and sanitary districts serving unincorporated communities to accommodate providing the resultant growth minimizes impacts to adjacent agricultural land. (County General Plan, Agricultural Element, Policy 2.118)
- AL-13:** In recognition that unincorporated land within sphere of influence of cities or community services districts and sanitary districts serving unincorporated communities ultimately will be urbanized, the County shall cooperate with cities and unincorporated communities in managing development in sphere of influence urban transition areas. (County General Plan, Agricultural Element, Policy 2.139)
- AL-14:** The County shall discourage the expansion of spheres of influence of cities or community services districts and sanitary districts serving unincorporated communities into its most productive agricultural areas. In order to mitigate the conversion of agricultural land resulting from a discretionary project requiring a General Plan or Community Plan amendment from "Agriculture" to a residential land use designation, the County shall require the replacement of agricultural land at a 1:1 ratio with agricultural land of equal quality located in Stanislaus County.
The County shall work cooperatively with the nine cities within the County and to [sic.] encourage them to adopt agricultural conservation policies or ordinances which are consistent with County policies or ordinances in order to undertake an integrated, comprehensive Countywide approach to farmland conservation. It is the ultimate goal of the County to have all nine cities participate in or adopt an agricultural mitigation ordinance that is the same as or substantially similar. (County General Plan, Agricultural Element, Policy-Policies 2.15 and 2.1744)

9. Response to Comment 12-9

The commenter summarizes the County's policies for the protection of farmland. In particular, the County encourages cities to adopt consistent agricultural protection policies and ordinances, including provisions for a 1:1 replacement ratio when agricultural mitigation is necessary.

As noted in Response to Comment 12-8, Section A(4)(d)(2) of Chapter V, Section 4 of the MEIR is revised to include the policies of the County Agriculture Element that was adopted in December 2007. However, the decision about whether the City should adopt consistent policies

is beyond the scope of this UAGP maintenance update. The agricultural protection policies adopted by the County, particularly Policies 2.15 and 2.17, represent a considerable change from the City's current policies and practice. As noted in Response to Comment 12-7, the City Council recently approved a work program to develop agricultural mitigation policies.

10. Response to Comment 12-10

The commenter notes that according to the City/County agreement, City development standards may only be applied by the County to discretionary projects located within the City's sphere of influence.

However, the agreement between the City and the County, executed on March 13, 1990, does not limit compliance with City standards to discretionary projects, and County policies enumerated in the County General Plan do not limit compliance with City standards to discretionary projects. To wit, paragraph A of the agreement states:

COUNTY agrees to take whatever action is necessary to insure that development permitted by COUNTY within CITY'S Sphere of Influence will be limited to agricultural uses, churches, and such other uses that may be mutually agreed upon by the parties hereto.

Furthermore, paragraph 205 of the agreement states:

COUNTY shall adopt a Resolution concurrently with its approval of this Agreement, declaring its intention to immediately begin procedures to amend its General Plan and elements thereof and adopt Zoning amendments consistent therewith which will result in the limitation of development [as described in paragraph A and delineating those areas exempted from the Agreement

11. Response to Comment 12-11

The commenter notes that the information set forth on page V-3-4 (Section A[4] of Chapter V, Section 3) has outdated information concerning the Proctor and Gamble facility and its surrounding orchards. The following changes were made to the text on page V-3-4 to correct these errors:

Another potential sound source is industrial plant facilities. Sound measurements were taken at the former Proctor and Gamble facility (now the G-3 facility) and E & J Gallo Winery in 1992 by Recon Environmental Corp. and presented in the 1995 Final Master Environmental Impact Report (EIR) for the UAGP. The results from these sound measurements are presented in Table 3-1. The E & J Gallo Winery operates 24 hours per day, seven days per week. Noises associated with the winery are produced by trucking/traffic operations, outdoor generators and other mechanical equipment, and bulk handling (e.g. forklifts) equipment (Byrd pers. comm.).

In 1992, the noise levels measured at the Proctor & Gamble facility were largely determined by facility truck traffic entering and exiting the facility along a driveway that was adjacent to an orchard. This orchard has since been removed. The noise levels measured at the E & J Gallo Winery were largely determined by vehicle traffic on Santa Rosa Avenue.

12. Response to Comment 12-12

The commenter notes that the MEIR incorrectly references the date of approval of the County Noise Element and recommends that the citations to the Stanislaus County General Plan contained in Chapter IX of the MEIR be reviewed for accuracy. The MEIR incorrectly references the date of approval of the Noise Element. However, it correctly reflects the Noise Element provisions. The first paragraph and Table 3-4 in Section A(5)(c) of Chapter V, Section 3 are amended to read as follows:

The Stanislaus County General Plan Noise Element goals, policies, and implementation measures limit the unincorporated community's exposure to excessive noise, and the Noise Element was comprehensively revised in ~~2004~~2006 in conjunction with the update of the County Circulation Element. The County has adopted a modified version of the OPR compatibility criteria (Table 3-4).

Table 3-4. County of Stanislaus Noise Element Standards

Maximum Allowable Noise Exposure from Stationary Noise Sources ¹		
	Daytime dB (7:00 a.m.–10:00 p.m.)	Nighttime dB (10:00 p.m.–7:00 a.m.)
Hourly L _{eq}	55	45
Maximum Level	75	65

¹ As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.

Source: Stanislaus County ~~2004~~2006.

The reference to the County General Plan Noise Element in MEIR Chapter IX is corrected to read as follows:

Stanislaus County General Plan Noise Element. ~~2004.~~ 2006. Available:

<<http://www.stancounty.com/planning/pl/general-plan.shtml>>.

<<http://www.stancounty.com/planning/pl/gp/gp-chapter4.pdf>>

13. Response to Comment 12-13

It is unclear whether the commenter is referring to a long-range planning effort for which an alignment has not yet been selected or to an interim roadway widening. StanCOG's traffic model, which was utilized in the preparation of the noise analysis, reflects all of the alignments that have been approved to date. When a decision has been made, StanCOG will revise the alignment in the model; until such time as a decision is made, any alignment other than that shown is speculative.

14. Response to Comment 12-14

Upper management staff at the City and the County have formed a team that meets regularly to discuss and prioritize annexations of County island areas. Analysis of infrastructure financing and documentation of infrastructure financing programs are the primary areas of focus for team discussions. The team's main purpose is to ensure that annexations of isolated pockets within islands and annexations of entire islands will not occur without a comprehensive plan for infrastructure financing. On a project-by-project basis, the City and County negotiate and enter into Public Improvement Agreements in order to establish responsibility and timing for the full range of specific infrastructure improvements. The fully executed agreement is a necessary prerequisite to consideration of island/pocket annexation by the Stanislaus LAFCo.

15. Response to Comment 12-15

The County suggests that the City adopt County General Plan policies as mitigation measures. The MEIR identifies County policies as part of the regulatory background, and these policies cover areas outside of the City limits. As presented in the MEIR, policies of the UAGP address impacts of the UAGP. The City can generally implement mitigation measures and policies only within the City limits. The mitigation measures in the MEIR, including referenced County policies, are intended to be applied to Specific Plans and individual development projects, as they may apply to these projects. Mitigation measures are drawn from the MEIR and applied to subsequent environmental documents, as described on pages III-7 and III-9.

Letter 13

William D. Ross
Kypros G. Hostetter
Karin A. Briggs

Chirag Shah
Of Counsel

Law Offices of
William D. Ross
A Professional Corporation
520 South Grand Avenue, Suite 300
Los Angeles, CA 90071-2610
Telephone: (213) 892-1592
Facsimile: (213) 892-1519

Palo Alto
400 Lambert Street
Palo Alto, California 94306
Telephone: (650) 843-8080
Facsimile: (650) 843-8093

File No: 389/3 & 178/5

May 9, 2008

VIA ELECTRONIC & U.S. MAIL

cvanempel@modestogov.com

Ms. Cindy van Empel, Senior Planner
City of Modesto
Planning Division
1010 Tenth Street, 3rd Floor, Suite 3300
Modesto, California 95354

Re: Comments Of Salida Fire Protection District And Stanislaus Consolidated
Fire Protection District On Draft Master Environmental Impact Report
Update For The Urban Area General Plan Amendments

Dear Ms. van Empel:

This communication comments on behalf of the Salida Fire Protection District and the Stanislaus Consolidated Fire Protection District (the "Districts") on City of Modesto ("City"): (1) Proposed Urban Area General Plan ("General Plan") and Amendments (the "Amendments" or "Project"); and, (2) the Draft Master Environment Impact Report Update for the Urban Area General Plan and Related Amendments to the Urban Area General Plan, dated March 2008, SCH #2007072023 (the "DMEIR").

The Districts reserve the right, consistent with the provisions of Public Resources Code section 21177, to comment further on the compliance of the DMEIR with the California Environmental Quality Act (Public Resources Code section 21000, *et seq.*, "CEQA") and its implementing guidelines, (Title 14, California Code of Regulations section 15000, *et seq.*, the "CEQA Guidelines").

13-1

G:\178.005\LTR\2008\van Empel (Final) 050908.vpd

Ms. Cindy van Empel
Senior Planner, City of Modesto
May 9, 2008
Page 2

I. FACTUAL BACKGROUND

The DMEIR examines the Amendments under CEQA and the CEQA Guidelines which responds to changes in federal, state, and local policies that have occurred since the General Plan was adopted by the City Council in 1995 and amended in 2003. The specific changes in the update to the DMEIR and the General Plan, supposedly fall into three categories: (1) incorporating as policy those practices that are regularly approved and which effectively have become policy, (2) proposing policies (amendments to the General Plan) to provide direction for anticipated issues, and (3) incorporating adopted policies that are not currently reflected in the General Plan, and are summarized in the DMEIR under the Project Description (DMEIR, pp. III-1-III-9). The objectives of the Amendments are also set forth in the DMEIR at pp. III-7- III-8.

13-2

The DMEIR sets forth two Project alternatives (DMEIR, p. I-4; Chapter VIII), which include: (1) The No Project Alternative; and, (2) No Changes to Street Descriptions.

As the current providers of fire services to portions of the Project Area, the Districts offer these comments to ensure that the DMEIR is legally adequate in presenting a comprehensive analysis of the Project for review by the decision-makers and the public.¹

¹ The Districts respectfully note that the issues raised in this communication have been raised continually with the City *without* substantive response. The last time that the Urban Area General Plan was amended, 2003 many of the issues advanced in this communication with respect to the now proposed Amendments were raised without substantive response by the City. *See for example*, January 27, 2003 communication of this office to Mr. Patrick Kelly, Principal Planner of the City by this office; a March 4, 2003 communication of this office to the Honorable Carmen Sabatino, Mayor and Members of the City Council and more recently, an August 27, 2007 letter of this office to Mr. Steve Nish, Senior Planner concerning the **Pelandale-McHenry Specific Plan** all addressing the same issue – the impact of the City development policy on remainder portions of the County unincorporated territory served by Districts whose funding, the property tax – is significantly and negatively impacted by any annexation.

G:\178,005\LTR\2008\van Empel (Final) 050908.wpd

Ms. Cindy van Empel
Senior Planner, City of Modesto
May 9, 2008
Page 3

II. SUMMARY OF DISTRICTS COMMENTS ON DMEIR INADEQUACIES

The DMEIR is legally inadequate and should be revised and recirculated because:

1. The present method of analysis to effectuate the consideration of the impacts of the Amendments on the physical environment is deficient as it assumes at the outset, without analysis, that the economic capabilities or revenue sources of the City will be maintained.
2. The DMEIR Project Description is inadequate because it does not accurately and completely describe the Project.
3. The DMEIR analysis of Project Alternatives is inadequate because feasible alternatives are not discussed.
4. The DMEIR analysis of Environmental Setting is inadequate in that it does not describe the total area of impact of the Project, that is, to include the remainder portions of the District after the Project is implemented through annexation of areas within the Planned Urbanizing Area.
5. The DMEIR is inadequate with respect to analysis of impacts of the Project. Specifically, the DMEIR analysis of water supply is inadequate as is the DMEIR analysis of the public service impacts which will occur as a result of proposed development outside of the City limits in the areas for which the Districts currently provide fire services.²

13-3

III. STANDARD OF REVIEW

The method by which the City attempts to comply with CEQA in assessing the Amendments is that of a Master EIR which is governed by the provisions of Public Resources Code section 21156 *et seq.* and CEQA Guidelines sections 15175-15179.

13-4

² The powers and services of the Districts are governed by the provisions of the Fire Protection Law of 1987, Health and Safety Code section 13800, *et seq.*

CE-178.005/LTR/2008/van Empel (Final) 050908.wpd

Ms. Cindy van Empel
Senior Planner, City of Modesto
May 9, 2008
Page 4

IV. SPECIFIC DISTRICT COMMENTS

A. General Method of Analysis of DMEIR

The present method of analysis to effectuate the consideration of the impacts of the Amendments on the physical environment is deficient as it assumes at the outset, without analysis, that the economic capabilities or revenue sources of the City will be maintained.

It is common knowledge that the State of California is in a severe budget deficit with projected impacts processed through the Governor's Budget and legislative budget proposals which will change the method and manner in which municipal revenues may be imposed and collected. Normally, economic considerations are not required to be evaluated in project environmental review as they are not related to physical impact on the environment. However, when economic impacts are directly related to the physical impacts on the environment contemplated in the project, they must be analyzed. *Goleta Union Sch. Dist. v. Regents of the University of California*, (1995) 37 Cal.App.4th 1025, 1030-31; CEQA Guidelines section 15131(a). Likewise, there is a lack of acknowledgment of the "sub-prime mortgage crisis" and its direct and continuing impact on the generation of property tax revenues for the City, the County and Special Districts within the Project Area. This imminent reduction in conjunction with the possible implementation of the "Proposition 1A Loan" of up to 5 percent of local government property tax revenues is not acknowledge anywhere in the DMEIR or as a policy of the City in implementing growth.

13-5

To suggest that this issue can be avoided either in the Project description or in the environmental setting or an assessment of Project impacts on the physical environment is an abuse of the CEQA process and an insult to the public and clearly impacted local agencies such as the Districts.

Here, the contemplated proposed Project Area of the General Plan Amendment *does not* consider how the modification of City, and other local agency revenues would relate to future development and its implementation for fire services (and the related issues of water supply), physical impacts on the environment.

G:\178.005\LTR\2008\van Empel (Final) 050908.vpd

Ms. Cindy van Empel
 Senior Planner, City of Modesto
 May 9, 2008
 Page 5

B. The DMEIR Inadequately Describes The Project

The Project Description does not accurately reflect that a component of the Project is a series of annexations by the City with an absence of impact on the “remainder” portions of the affected local agencies³ which is prohibited under CEQA.

Reference is made in DMEIR Chapter 1(D)(2)(a) that growth-inducing impacts of the Project include “designation of land for future residential, commercial, and industrial development” and “extension of police and fire services to annexed lands.” DMEIR p. I-10. As there is ample evidence regarding fire service impacts to the unincorporated areas as well as to the Project Area, there should be a *present* analysis of these impacts as well as mitigation measures to address these impacts on the existing environment.⁴ There is no consideration of this concept in the Project Description.

13-5
 cont.

C. Analysis of Alternative Project

The DMEIR presently analyzes two Project alternatives including a no project alternative. It is well-established that only feasible alternatives that obtain the Project’s basic objectives need to be analyzed. *Citizens of Goleta Valley v. Board of Supervisors* (1990), 52 C.3d 553, 564-565; *Village Laguna of Laguna Beach, Inc. v. Board of Supervisors* (1982), 134 Cal.App.3d 1022, 1029-1030.

13-6

A feasible project alternative that is *not* set forth is continued development within the Project Area subject to development constraints as may be applicable to the subject site through County land jurisdiction and the provision for municipal services through the County or other public agencies including the Districts for fire services. Simply stated, this would

³ See, Government Code section 56014. This section states that Affected local agency means “any local agency which contains, or would contain, or whose sphere of influence contains, any territory within any proposal or study to be reviewed by the commission.”

⁴ Conditioning and environmental analysis on another agency’s future review of environmental impacts without evidence of the likelihood of effective mitigation by the other agency, is insufficient to support a determination by the lead agency (here the City) that potentially significant impacts will be mitigated. See, *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 306-307.

G:\178.005\LTR\2008\van Empel (Final) 050908.wpd

Ms. Cindy van Empel
 Senior Planner, City of Modesto
 May 9, 2008
 Page 6

involve a development project that is annexed to City *without* detachment from either of the respective Districts.

CEQA requires that the no project alternative be discussed in an EIR addressing “existing conditions” as well as “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” CEQA Guidelines section 15126.6(e)(2).

13-6
 cont.

This “alternative” would involve some type of integration of governmental services, specifically fire and emergency medical services with the utilization of annexation without detachment as just referenced. Keeping in mind the definition of feasible,⁵ the DMEIR should evaluate the land use constraints of the 2007 Salida Community Plan in conjunction with a combination of the Salida Community Plan for the Project Area in the Salida Fire Protection District and the County General Plan for the Project Area in the Stanislaus Consolidated Fire Protection District for this type of integration of the services.

D. Inadequate Description of Environmental Setting

For the same reasons that the Project Description is inadequate, the “environmental setting” (DMEIR, Ch. IV) is also inadequate in that it does not describe the total area of impact of the Project, that is, to include the remainder portions of the District after the Project is implemented through annexation of areas within the Planned Urbanizing Area.⁶

13-7

⁵ “An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible.” CEQA Guidelines, section 15151. What is “reasonably feasible” is a function of “factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project.”

⁶ As implementation is a mandatory duty of any General Plan Policy, Government Code section 65103(b), it is a deficiency of the DMEIR that the Districts are not listed as responsible agencies under the implementation provisions of the DMEIR. See, DMEIR, p. 11-13. One is left to guess as to how a change of organization in the form of an annexation from the Districts’ territory would be accomplished without an analysis of that portion of the Project on the Districts as response agencies under CEQA.

G:\17X\005\17X\2008\van Empel (Final) 050908.wpd

Ms. Cindy van Empel
 Senior Planner, City of Modesto
 May 9, 2008
 Page 7

Likewise, the environmental setting entitled *completely disregards* the existence of the 2007 Salida Community Plan under subsection "C. Relationship to Regional and Local Plans." This deficiency, is critical because without a description of the land use policies and development policies set forth in the Community Plan there cannot be a complete assessment of the environmental setting to serve as a baseline for ascertaining the impacts of the Project.

13-8

E. Inadequate Project Impact Analysis

The DMEIR is inadequate with respect to analysis of impacts of the Project. The DMEIR must analyze all phases of a project with respect to significant environmental effects which cannot be avoided, mitigation measures to minimize the significant effects, the relationship between local short term uses and the maintenance and enhancement of long term productivity, significant irreversible environmental changes and growth inducing impacts. CEQA Guidelines section 15126.

13-9

Specifically, the DMEIR fails to adequately address water supply for the Project and the DMEIR is completely inadequate with respect to analysis of the public service impacts which will occur as a result of proposed development outside of the City limits in the areas for which the Districts currently provide fire services.

1. Inadequate Assessment of Water Availability

The DMEIR, analysis of water availability (pp. V-5-1-V-5-17) although lengthy, needs to be supplemented. The DMEIR must address water supply for the Project pursuant to the standards set forth in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412 ("*Vineyard*"); modified, April 18, 2007.

13-10

The four analysis principles of *Vineyard* are:

- (1) Decision makers must be presented with sufficient facts with respect to solutions for water supply problems. Such facts must be sufficient to "evaluate the pros and cons of supplying the amount of water that the [project] will need." *Vineyard*, 40 Cal.4th 412, 430-31.
- (2) An adequate environmental impact analysis for a large project that is to be built and occupied over a number of years cannot be limited to the water supply that covers only the first stage or a first few years . . . stating

G:\178.005-LTR\2008\van Empel (Final) 050908.wpd

Ms. Cindy van Empel
Senior Planner, City of Modesto
May 9, 2008
Page 8

information that will be provided in the future does not satisfy CEQA. *Id.* at p. 431.

- (3) An EIR for a land use project must address the impacts of *likely* future water sources, and its discussion must include a reasoned analysis of the circumstances affecting the likelihood of the water's availability. Future water supplies identified and analyzed must prove likely to be available therefore speculative sources and unrealistic allocations are insufficient for decision-making under CEQA. *Id.* at 432.
- (4) CEQA requires some discussion of possible replacement sources or alternatives to use of the anticipated water, and of the environmental consequences of those contingencies. When the EIR makes a reasonable analysis of water sources that the project is likely to use, but acknowledges the remaining uncertainty, a measure for curtailing development if the intended sources fail to materialize may play a role in the impact analysis. *Id.*

13-10
cont.

These principles were recently upheld in a series of cases involving Santa Clarita Organization for Planning the Environment and the County of Los Angeles. *Santa Clarita Organization for Planning the Environment v. County of Los Angeles* ("SCOPE I") was initially heard by the Second District Court of Appeal in 2003 (106 Cal. App. 4th 715). After remand, the case was heard on appeal ("SCOPE II"), 155 Cal. App. 4th 660 (2007). In the *SCOPE II* Opinion, issued on September 25, 2007, the Second District Court of Appeal clarified the method that governs the analysis of water services in an EIR, as previously discussed in *Vineyard*.

In summary, it is imperative that the DMEIR for the Project comply with the standard for analysis of water supply as set forth in *Vineyard* and *SCOPE*. This type of analysis is presently lacking in the DMEIR.

2. Inadequate Assessment of Impact of Project on Districts' Services.

The DMEIR is completely inadequate with respect to analysis of the public service impacts which will occur as a result of proposed development outside of the City limits in

13-11

GIS:178.005\LTR\2008\van Empel (Final) 050908.vpd

Ms. Cindy van Empel
Senior Planner, City of Modesto
May 9, 2008
Page 9

the areas for which the Districts currently provide fire services.⁷

Chapter V, section 14, "Increased Demand for Fire Services" does not adequately discuss Project impacts with respect to Fire services because, among other things, it fails to include the remaining portions of unincorporated territory in its "study area" for direct impacts or cumulative impacts when annexation occurs and omits any discussion of the impact of sequential annexations on the "remainder" participating Districts.

The lack of a coherent assessment and analysis of the Project impact on the Districts and their "remainder" territory and the ability to provide fire and emergency medical services, is evidenced by the acknowledgment of a UAGP Services Policy within the Planned Urbanized Area that is incomplete. That policy, FS-18 provides as follows:

The City of Modesto may negotiate with affected fire protection districts when an annexation to the City is contemplated and before it has been effected to determine whether the boundary change may result in the erosion of fire protection or other emergency services. Any resulting agreements must be approved by City Council and the government board of the fire protection district prior to City Council approval of the annexation. Options range from the consolidation of the fire protection district into the Modesto City Fire to revenue sharing. (UAGP Policy V-K.2 [m])

13-11
cont.

This policy statement is not related to an impact in an accurately described environmental setting – that of the geographic areas of the remainders portions of the District under acknowledged fiscal conditions – the sub-prime mortgage crisis issue and its impact on property tax revenues and the yet unresolved State Budget crisis. Until those factors are acknowledged in the DMEIR and analytically related to the annexation policy contemplated as a development policy of the City, the analysis project impact on fire services, and

⁷ The powers and services of the District are governed by the provisions of the Fire Protection Law of 1987, Health and Safety Code section 13800, *et seq.*
G:\178.005\LTR\2008\van Empel (Final) 050908.wpd

Ms. Cindy van Empel
Senior Planner, City of Modesto
May 9, 2008
Page 10

specifically the Districts is incomplete and legally inadequate.

The DMEIR analysis of supposed Mitigating Measures (Section 14C) is similarly inadequate because it fails to address mitigation measures for the impact of sequential annexations on the Districts.

13-11
cont.

V. CONCLUSION

The DMEIR does not comply with CEQA or the CEQA Guidelines as it does not set forth sufficient detail with respect to the Project Description or relationship of the proposed Amendments and their implementation. The DMEIR analysis of Project Alternatives is inadequate because feasible alternatives are not discussed. The DMEIR analysis of Environmental Setting is inadequate in that it does not describe the total area of Project impact, including the remainder portions of the District after the Project is implemented. Finally, the DMEIR is completely inadequate with respect to analysis of impacts of the Project including analysis of Increased Demand for Long-term Water Supplies and impacts on public services which will occur as a result of proposed development outside of the City limits in the areas for which the Districts currently provide fire services.

13-12

Until these deficiencies are remedied and accomplished and the revised DMEIR is recirculated, the Project has not been properly analyzed under CEQA.

Very truly yours,


William D. Ross

WDR:KAB

cc: Dale Skiles, District Chief
Salida Fire Protection District

Stephen F. Mayotte, District Chief
Stanislaus Consolidated Fire Protection District

G:\178.005\LTR\2008\van Empel (Final) 050908.wpd

N. RESPONSES TO COMMENT LETTER 13—WILLIAM D. ROSS, LAW OFFICES OF WILLIAM D. ROSS ON BEHALF OF SALIDA FIRE PROTECTION DISTRICT AND STANISLAUS CONSOLIDATED FIRE PROTECTION DISTRICT

1. Response to Comment 13-1

The commenter states that his comments are made on behalf of two fire districts: the Salida FPD and the Stanislaus Consolidated FPD.

2. Response to Comment 13-2

The commenter briefly characterizes the general plan maintenance update for which this MEIR is prepared.

Footnote 1 within this comment alleges that the issues being raised in Comment Letter 13 “have been raised continually with the City *without* substantive response” (emphasis in original). The City respectfully disagrees. Each time these issues have been raised in the CEQA process—for example, during update of the MEIR in 2003 and for the Pelandale-McHenry Specific Plan—the final EIR included or will include a written response to the comment.

The City has been in discussions with the FPDs looking for mutually acceptable solutions to these issues. The boards of directors of both the Stanislaus Consolidated FPD and the Salida FPD have formally asked the City to consider providing contract emergency and administrative services to the areas currently served by these districts. The City has agreed to participate with the districts in evaluating the possibility of providing those services.

3. Response to Comment 13-3

The commenter asserts that the MEIR is inadequate and lists five points. Each of these points is made later in this letter in greater detail. See Responses 13-5 through 13-11 for specific responses.

4. Response to Comment 13-4

The commenter notes that the environmental document is an MEIR. No response is necessary.

5. Response to Comment 13-5

The commenter contends that the MEIR’s analysis fails to consider the economic capability of the City to provide services in the current fiscal environment. The commenter cites the state’s budget deficit and conjectures that it will “change the method and manner in which municipal revenues may be imposed and collected.”

There is no evidence presented that, in solving the state's chronic budget deficit, the governor and state legislature will change how municipalities impose and collect their revenues. The foundations of the state's financing scheme are largely the result of the initiative process (Proposition 13 limiting property taxes, Proposition 218 restricting the use of assessments and special taxes, Proposition 98 guaranteeing school financing, and others) and cannot be changed by either the governor or legislature.

Regarding the City's maintenance of its "economic capabilities or revenue sources," the draft MEIR assumes that these will continue to be sufficient to provide services within the City because there is no evidence that the City will not be able to finance those services in the future. Certainly, the State of California has a chronic budget imbalance that is structural in nature, but whether that will prevent the City from providing local services is pure conjecture.

Proposed UAGP Policy V.A.1(a) will:

[e]nsure that services and infrastructure capacities are adequate to meet the needs of the community. This will include requiring that new development projects provide necessary services and infrastructure to meet concurrently or before development occurs."

In addition, by requiring financing along with new growth, proposed UAGP Policy II.B.2 would avoid a situation where the City would be unable to serve its residents. It reads as follows:

The City's overall Community Development Strategy is that new growth and development should, to the extent provided by law, provide public infrastructure and should generate public revenue so that the City's overall fiscal base is maintained and enhanced. In evaluating development proposals, the City should consider the long-range impact on the City's fiscal balance.

- a. In order to achieve desirable levels of community facilities, it will be necessary to address existing deficiencies. The long-term financing strategy should provide for broad-based funding approaches to meet broad-based community needs.
- b. Typically, there is a long lead time to plan, finance, and construct infrastructure to serve new areas. Long-range infrastructure planning should identify cost estimates and accompanying rate structures, and buy-in fees, and staging and coordination issues which can be included in any long-term financing strategy.
- c. Development proposals within the Baseline Development Area do not require the same attention to fiscal impact analysis as in the Planned Urbanizing Area because projects will tend to be smaller, in-fill types, which will be served by existing infrastructure. Nonetheless, community-wide financing strategies should apply to Baseline Development as well.
- d. Community growth should be managed so that the quality of life is enhanced without imposing significant fiscal burdens on the existing community. The City shall ensure the timely provision of infrastructure.
- e. Require new development to support the infrastructure and public services necessary to serve that development. General fund and other broad-based outlays should be limited to those situations where the infrastructure will provide Citywide benefits or will otherwise offer a tangible benefit beyond the area of the new development.
- f. Substantial areas proposed for new development will be required to plan for appropriate infrastructure and its funding consistent with the City's Specific Plan Guidelines. Infrastructure shall be in place before or concurrently with development. Similarly, infrastructure-financing mechanisms shall be required to be in place prior

to development within approved specific plans. The City will take a comprehensive approach to financing, using a blend of special taxes, benefit assessments, bonds, and other methods to ensure that infrastructure installation occurs in a timely manner.

- g. New development shall be phased according to the capacity of public facilities and services to serve new development.
- h. The City shall require a fiscal impact analysis to identify operation and maintenance costs for discretionary development proposals of potential fiscal significance.
- i. The City shall develop, collect, and update standard processing/administration fees for staff time to process will-serve letters, water supply assessments/verifications, and/or other future water-related, unfunded state-mandated studies/assessments.

The commenter also states that the project description “does not accurately reflect that a component of the Project is a series of annexation by the City” and therefore fails to address impacts on unincorporated remainder parcels.

The project does not include any specific annexation proposal. As a General Plan update, the project is amending the policies that guide the City’s future growth, in accordance with California planning law.

The MEIR properly addresses the potential effects of future annexations at a general level congruent with the level of detail currently available. This is not deferring either analysis or mitigation. For example, the MEIR’s discussion and determination of the significance of potential impacts on the FPDs from annexations discloses the general effects of future annexations. UAGP Policies V.K.2(m) and VI.D.1(c)(5) are being proposed as a means of avoiding or reducing those impacts through changes to the UAGP.

When specific annexation proposals come forward in the future, there will be site- and project-specific information available that will be considered in the additional CEQA analyses that will be required at that time. The general conclusions and impact reduction measures in the MEIR will be used as the basis for that later analysis, as authorized pursuant to Public Resources Code (PRC) Sections 21157.1 and 21157.5, with the analysis focusing on any new, project-specific impacts.

6. Response to Comment 13-6

The commenter suggests that the MEIR evaluate another alternative, consisting of the following assumptions for future actions:

- Development would continue within the project area.
- Development would be subject to constraints and regulations as may be applicable under County jurisdiction, including the Salida Community Plan for areas within the Salida FPD and the County General Plan for areas in the Stanislaus Consolidated FPD.
- Municipal services within the project area would be provided by the County or other public agencies, including the FPDs.

- Annexations to the City would not include detachment from either of the FPDs and would involve “some type of integration of government services” for fire and emergency medical services.

CEQA provides that an EIR must examine a reasonable range of project alternatives. These alternatives must meet most or all of the project’s objectives, be potentially feasible, and reduce one or more of the project’s significant impacts.

The No-Project Alternative differs from the proposed alternative in that, under the No-Project Alternative, the current UAGP would remain in effect. The current UAGP embodies the City’s vision of planned, gradual expansion through the adoption of community plans and specific plans within discrete CPDs located within the Planned Urbanizing Area.

The alternative proposed by the commenter would meet the project objectives described in Chapter III of the MEIR, with the following key exceptions:

- amending the UAGP to reflect Modesto policy changes that have occurred since 2003,
- amending the UAGP without resulting in any substantial changes to the City’s land use diagram or increases in development potential, and
- providing a “maintenance update” of the UAGP that will provide an adequate document pending a comprehensive UAGP overhaul in the future.

These objectives reflect the Modesto City Council’s directive that this amendment to the UAGP is to be for “maintenance” only, with a comprehensive amendment to follow that would consider broader revisions to policy.

Revising the UAGP to reflect the Salida Community Plan adopted by the Stanislaus County Board of Supervisors in August 2007 would require a substantial change to the land use diagram and intensification of development potential. Furthermore, the adopted Salida Community Plan is poorly defined and because the County decided not to prepare a CEQA document for this discretionary action, and there is no project description in which to discover the County’s assumptions of the development potential in the Salida Community Plan. The UAGP currently identifies the Salida area as a CPD, based on the County’s 2000 Community Plan for the area, which was defined by a project description. The CPD designation would need to be removed or significantly redefined. Similarly, revising the current UAGP to reflect County General Plan designations for the portions of the Planned Urbanizing Area located within the Stanislaus Consolidated FPD would require eliminating the CPDs along the northern edge of the City (including Kiernan/Carver, Kiernan/McHenry, Hetch Hetchy, and Roselle/Claribel, among others), as well as the Johansen and Empire North CPDs along the City’s east side. These changes would not reflect any Modesto policy changes since 2003.

Salida is under County land use jurisdiction, the City has no plans to annex the Salida area, and, with the County’s adoption of a new Community Plan, the City may eventually choose to delete Salida from its Planned Urbanizing Area. However, a decision of this scope is outside of the limited objective of the City’s maintenance update. Therefore, the suggested alternative will not be analyzed.

7. Response to Comment 13-7

The commenter states that the environmental setting is inadequate because it does not include the portions of the FPDs that would remain should the City annex all parts of the Planned Urbanizing Area. In addition, the commenter states that the environmental setting disregards the 2007 Salida Community Plan.

The environmental setting is not inadequate. The proposed project area does not include those portions of the FPDs that are outside the Planned Urbanizing Area because they are not proposed for City annexation or development under City policies. To the extent that actions of the City in implementing the UAGP will affect those adjoining portions of the districts, the impacts have been analyzed and disclosed in Section B(4)(b) of Chapter V, Section 14 of the MEIR. Subsequent environmental documents will address any project-specific impacts or impacts at a greater level of detail as necessary.

8. Response to Comment 13-8

The commenter also notes that the environmental setting does not describe the County's 2007 Salida Community Plan and opines that there cannot be an adequate analysis of the environmental baseline without it.

Pursuant to the State CEQA Guidelines, the environment setting is the baseline for impact analysis (Section 15125). The environmental setting consists of "the physical environmental conditions in the vicinity of the project" (Section 15125[a]). The analysis in the MEIR relies upon the existing land uses in the Salida area for its environmental setting. This is consistent with the requirements of State CEQA Guidelines Section 15125.

Nonetheless, the MEIR should mention that the County General Plan includes the Salida Community Plan. Therefore, Section IV[C][1], page IV-2 of the draft MEIR, is amended to include a brief description of the Salida Community Plan.

a. General Plan

The Stanislaus County General Plan (County General Plan) applies to the unincorporated lands surrounding Modesto, including lands within the City of Modesto's (City's) sphere of influence. It guides Stanislaus County's (the County's) land use and development decisions. The Salida Community Plan, adopted by the Stanislaus County Board of Supervisors in August 2007 in response to a proposed ballot initiative, establishes land use policies for the Salida area northwest of the Modesto City limits on both sides of SR 99. The Salida Community Plan covers nearly 3,400 acres, including the existing community of Salida, and provides for future mixed residential, commercial, business park, and planned industrial land uses. Existing land uses consist of residential subdivisions, with commercial development located along SR 99. Pending the availability of financing to build the necessary infrastructure to support these uses, the Salida Community Plan proposes substantial business park and planned industrial development north of the City limits. This is similar in nature to the type of development identified in the City's Salida Community Planning District.

9. Response to Comment 13-9

The commenter states that the MEIR is inadequate with respect to its analysis of project impacts. The commenter makes specific statements in this respect in Comment 13-10. Please see Response to Comment 13-10.

10. Response to Comment 13-10

The commenter states that the MEIR “fails to adequately address water supply for the project and the [draft MEIR] is completely inadequate with respect to analysis of the public service impacts which will occur as a result of proposed development outside the City limits in the areas for which the Districts currently provide fire services.” This alleged inadequacy includes the requirements of a Water Supply Assessment (WSA). Pursuant to State CEQA Guidelines Section 15155, a WSA is required for specific projects under CEQA identified as “water demand projects.” A General Plan is not included in the definition of a “water demand project” in Section 15155. Therefore, a WSA is not required for this environmental document, although the City of Modesto prepares WSAs for individual Specific Plans, which ensures the assessment is current and that the Infrastructure Finance Plan is as financially accurate as possible. It is the responsibility of Stanislaus County to identify a water supply for the areas under its jurisdiction, including the Salida Community Plan.

Although the MEIR is not required to undertake a WSA, it is expected to examine the potential impacts of the UAGP on water supplies. Specifically, it must follow the principles set out in the California Supreme Court’s decision in *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412. These principles are as follows:

1. CEQA is not satisfied by an EIR that ignores or assumes a solution to water supply without sufficient facts.
2. Analysis for a large project to be built out over a number of years cannot be limited to the water supply for the initial stage.
3. Future water supplies relied upon in the analysis must have a likelihood of actually proving available and the EIR must include a reasoned analysis of their likelihood.
4. Where the analysis leaves some uncertainty regarding the availability of future water sources, the EIR must discuss possible replacement sources or alternatives to the use of the anticipated water and the environmental consequences of those contingencies.

The Modesto/Modesto Irrigation District Urban Water Management Plan (UWMP) referenced in the MEIR recognizes that current water supplies will fall substantially short of future demands, even with conservation and more conjunctive use. Accordingly, the MEIR concludes that the City will not have sufficient water supplies in the future and identifies this as a significant and unavoidable impact.

The MEIR’s water supply analysis is based upon the UWMP adopted in 2007. It shares the UWMP’s 2030 planning horizon. This is not an “initial stage” of a project, but is in fact beyond the 2025 planning horizon of the UAGP itself.

The UWMP identifies TID's Surface Water Supply Project and the Modesto Regional Water Treatment Plant (MRWTP) Phase Three expansion as alternative sources of future supplies to meet the city's future treated water demand. TID's project has been through the CEQA process and is in the design phase. Given the demand for treated water in the City and its neighboring communities, as well as the availability of raw water from TID's rights to the Tuolumne River, construction of this plant is quite likely if agreement can be reached over the funding for the plant. The MRWTP Phase Three expansion is in the discussion stage. If Modesto participates in TID's Surface Water Supply Project, the likelihood that Phase Three of the MRWTP will be built diminishes. Both of these potential sources of treated water are discussed below, along with the potential environmental impacts that may arise from their construction and operation.

TID's Surface Water Supply Project consists of a water treatment plant and pipelines with the capacity to treat and deliver 42.5 million gallons per day of surface water to the communities of Ceres, South Modesto, Hughson, Keyes, and Turlock. The water would be removed from the Tuolumne River at TID's existing diversion east of Greer Road. Should the City and TID enter into agreement over purchase and distribution of a portion of this new supply of treated water, approximately 11.5 million gallons per day potentially would be provided to south Modesto. As described in Appendix B of the May 2007 Modesto/MID Urban Water Master Plan, the supplies provided by the Surface Water Supply Project (in conjunction with completion of the Phase Two expansion of the MRWTP) would enable the City to meet its treated water needs to 2030.

At present, the City is coordinating with TID on the predesign of the facility. The system is expected to be in service sometime after 2011.

The final EIR prepared for the TID Surface Water Supply Project in December 2006 identifies the following significant environmental impacts that would result from construction and operation of the system. All but two of the impacts would be reduced to a less-than-significant level by mitigation identified in the EIR.

Impacts from terminal facilities in each of the communities being served are listed below:

- Impacts to land use and agricultural resources from terminal facilities in each of the communities to be served would be less than significant with mitigation.
- The impacts of construction and operation of the terminal facilities on stormwater quality would be less than significant with mitigation.
- The impacts of construction and operation of the terminal facilities on terrestrial biological resources would be less than significant with mitigation.
- The potential impacts of construction and operation of the terminal facilities on archeological resources and on buried human remains, if any, would be less than significant with mitigation.
- Construction of the terminal facilities would result in a less-than-significant, temporary impact on traffic volumes with implementation of the mitigation in the EIR.
- The air quality impacts of construction and operation of the terminal facilities would be reduced to a less-than-significant level with implementation of the mitigation in the EIR.

- Noise levels from the construction and operation of terminal facilities in close proximity to sensitive noise receptors would be reduced to a less-than-significant level by the mitigation identified in the EIR.
- The impacts of construction and operation of the terminal facilities on wastewater facilities would be reduced to a less-than-significant level with implementation of the mitigation in the EIR.
- The solid waste impacts generated by construction and operation of the terminal facilities would be reduced to a less-than-significant level with implementation of the mitigation in the EIR.
- Construction and operation of the terminal facilities would result in a less-than-significant, temporary impact on electricity demand with implementation of the mitigation in the EIR.
- Construction and operation of the terminal facilities would result in a less-than-significant, temporary impact on demand for natural gas with implementation of the mitigation in the EIR.

Impacts from the water treatment plant and/or related pipeline facilities are listed below:

- Conversion of farmland to urban use as a result of the project would make a cumulatively considerable contribution to the loss of farmland in Stanislaus County (significant and unavoidable impact).
- The water treatment plant would alter the existing drainage pattern of its site, but this would be a less-than-significant impact with mitigation.
- The project's impact on burrowing owl habitat would be less than significant with mitigation.
- The project's potential impact on archeological resources and on buried human remains, if any, would be less than significant with mitigation.
- The project's increase in light and glare in the area would be less than significant with mitigation.
- Construction of the project would result in a less-than-significant, temporary impact on traffic volumes with implementation of the mitigation in the EIR.
- The air quality impacts of project construction would be reduced to a less-than-significant level with implementation of the mitigation in the EIR.
- Construction activities would make a cumulatively considerable contribution to emissions of particulate matter less than or equal to 10 microns in diameter (PM10), particulate matter less than or equal to 2.5 microns in diameter (PM2.5), and ozone (significant and unavoidable impact).
- Construction noise for the water treatment plant would be reduced to a less-than-significant level by the mitigation identified in the EIR.
- Noise levels from the construction of pipelines and related facilities in close proximity to sensitive noise receptors would be reduced to a less-than-significant level by the mitigation identified in the EIR.
- Noise levels from long-term operation of the water treatment plant would be reduced to a less-than-significant level by the mitigation identified in the EIR.

The City and MID recently approved the Phase Two expansion of the MRWTP. Work on the expansion is proceeding. The City and MID are currently discussing the possibility of further purchases of raw water by the City from MID and additional expansion of the MRWTP. If this option is pursued, the Phase Three expansion would be expected to treat an additional 10 million gallons per day for the City. By itself, the Phase Three expansion would not provide quite enough treated water to meet projected demand in 2030. If the TID Surface Water Supply Project and the MRWTP Phase Three expansion are both undertaken, the City would have sufficient treated water to meet projected demand to 2033.

The prospective MRWTP Phase Three expansion has not been designed. However, it would most likely be built on the site of the existing MRWTP, and its construction and operation would have environmental impacts similar to those identified for Phase Two, assuming that Phase Three would incorporate environmental commitments similar to those made a part of the Phase Two project. The final subsequent EIR prepared for the MRWTP Phase Two expansion in June 2005 identified the following environmental impacts:

- Impacts on views resulting from construction and operations of some of the transmission pipelines and tanks associated with Phase Two would be significant and unavoidable.
- The project would result in a long-term significant and unavoidable impact on farmland through future conversion to urban uses. The mitigation identified in the subsequent EIR would not be sufficient to reduce this below a level of significance.
- Construction of the MRWTP expansion and related facilities would have a significant and unavoidable impact on air quality.
- Intermittent operation of standby generators would exceed emissions thresholds and have a significant and unavoidable air quality impact.
- Vehicle emissions resulting from the urban development expected to be enabled by the additional water supply would be significant and unavoidable.
- Water quality impacts resulting from increased storm drainage at related facilities would be less than significant with the mitigation identified in the subsequent EIR.
- The MRWTP would result in a significant and unavoidable growth-inducing impact on the City of Modesto. The expansion would provide treated water, enabling the future growth of the city.
- Impacts on previously undiscovered archaeological resources and human remains resulting from construction of the facilities would be less than significant with the mitigation identified in the subsequent EIR.
- Construction of some of the project's related storage tanks and pipelines would result in potentially significant effects on valley elderberry longhorn beetles as a result of removal of elderberry shrubs, but the impact would be less than significant as a result of the mitigation identified in the subsequent EIR.
- Development of the tank sites would result in the loss of foraging habitat for Swainson's hawk, white-tailed kite, and other special-status or migratory birds and raptors. This impact would be less-than-significant as a result of the mitigation identified in the subsequent EIR.

- The storage tanks and pipelines associated with the MRWTP would result in potential disturbance of nesting Swainson's hawks. This impact would be less than significant as a result of the mitigation identified in the subsequent EIR.
- The storage tanks associated with the MRWTP would result in loss of nesting and foraging habitat for the western burrowing owl. This impact would be less than significant as a result of the mitigation identified in the subsequent EIR.
- The storage tanks and pipelines associated with the MRWTP would result in traffic congestion while under construction. This impact would be less than significant as a result of the mitigation identified in the subsequent EIR.

11. Response to Comment 13-11

The commenter reiterates his belief that the MEIR is inadequate in its analysis of the fiscal impacts on the FPDs and their ability to continue to provide fire protection. In particular, the commenter is concerned that the analysis does not address the remaining portion of the unincorporated area in its study area and the impact of "sequential annexations" of lands currently within the districts. The commenter also notes that the subprime mortgage crisis' impact on property tax revenues (properties in default fail to pay their property taxes) and the unresolved state budget have not been considered in the MEIR.

Please see Response to Comment 13-5 regarding the City's economic ability to provide services, 13-7 regarding the breadth of the study area, 10-10 regarding policies to avoid adverse fiscal impacts on the fire districts, and 10-13 regarding the impacts of annexations on the fire districts. Please also see Master Response 1.

With regard to the subprime mortgage crisis, this is a result of national policies that are outside the City's ability to control or mitigate. It is not the result of any City action, either directly or indirectly. Certainly, the loss of property tax revenues that occurs as a result of foreclosures and the inability of the buyer to pay their mortgage is a concern for the City. Also of concern is the slowing of the construction industry. These economic downturns reduce revenues from property taxes, special assessments, and impact fees that pay for services and infrastructure. However, this crisis is cyclical rather than unique. Recessions in the 1970s, 1980s, and 1990s all had similar effects on municipal revenues. The City anticipates that it will weather this crisis as it has those of the past and continue to provide services to its residents.

12. Response to Comment 13-12

In this comment, the commenter summarizes his previous comments. Please refer to Responses to Comments 13-1 to 13-11 for responses.

Chapter X

Citations

A. PRINTED MATERIALS

50States.com. 2007. *Modesto Junior College*. Accessed: May 17, 2007. Available: <www.50states.com/cc/detail/ca/118976.htm>.

Alta Planning and Design. 2006. *Modesto Non-Motorized Transportation Master Plan*. September. Prepared for the City of Modesto, Parks, Recreation and Neighborhoods Department. Berkeley, CA.

Anderson, L. W., M. H. Anders, and D. A. Ostenaar. 1982. Late Quaternary Faulting and Seismic Hazard Potential, Eastern Diablo Range, California. Pages 197–206 in E. W. Hart, S. E. Hirschfeld, and S. S. Schulz (eds.), *Proceedings, Conference on Earthquake Hazards in the Eastern San Francisco Bay Area*. (Special Publication 62.) Sacramento, CA: California Division of Mines and Geology.

Association of Bay Area Governments, San Joaquin Council of Governments, Stanislaus Council of Governments. 2003. *Demographics and Employment Forecasts: Population, Residential, and Job Growth in the IRP Region of Alameda, Contra Costa, San Joaquin, Santa Clara, and Stanislaus Counties*. Oakland, CA. June 2003.

Bartow, J. A. 1991. *The Cenozoic Evolution of the San Joaquin Valley, California*. U.S. Geological Professional Paper 1501.

Bean, W. and J. J. Rawls. 1983. *California: An Interpretive History*. McGraw-Hill Book Company, San Francisco, CA.

Beedy, E. C. 1989. *Draft habitat suitability index model, Tricolored blackbird (*Agelaius tricolor*)*. Prepared by Jones & Stokes Associates for U.S. Bureau of Reclamation, Sacramento, CA.

Black and Veatch, Provost and Prichard Engineering Group, and Kenneth Schmidt & Associates. 1995. *Development of a Groundwater Management Plan Phase 1, Technical Memorandum*. Prepared for the Stanislaus & Tuolumne Rivers' Groundwater Basin Association.

Brown, L. B., and P. B. Moyle. 1993. Native fishes of the San Joaquin Valley drainage: status of a remnant fauna. Proceedings of a conference of Endangered and Sensitive Species of the San Joaquin Valley.

California Air Pollution Control Officers Association. 2008. *CEQA & Climate Change*. Sacramento, CA. January 2008.

California Building Standards Commission. 2007. Proposed Green Building Standards. Available: <http://www.bsc.ca.gov/prpsd_std/default.htm>. Accessed: December 27, 2007.

California Department of Conservation, Division of Mines and Geology. 1993. *Mineral Land Classification of Stanislaus County*. Special Report 173.

- . 1999. *Mines and Mineral Producers Active in California (1997–1998)*. Special Publication 103.
- California Department of Conservation. 2004. Table 3, Part III: Land Use Conversion from 2000 to 2002. Sacramento, CA. Available: <http://www.consrv.ca.gov/DLRP/fmmp/pubs/2000-2002/FCR/FCR_00_02_ch4.pdf>. Accessed: May 3, 2007.
- . 2006. Stanislaus County Williamson Act Lands 2006: Lands Enrolled in Williamson Act and Farmland Security Zone Contracts as of 01-01-2006. Sacramento, CA.
- California Department of Education. 2000. *Guide to School Site Analysis and Development*. (2000 Edition.) Available: <<http://www.cde.ca.gov/ls/fa/sf/documents/schoolsiteanalysis2000.pdf>>. Accessed: August 1, 2007.
- California Department of Finance. 2006a. E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change—January 1, 2005 and 2006. May. Sacramento, CA.
- . 2006b. *County Population Estimates and Components of Change by County, July 1, 2000–2006*. December. Sacramento, CA.
- . 2007a. E-1 Report: *E-1 Population Estimates for Cities, Counties and the State with Annual Percent Change—January 1, 2006 and 2007*. May. Sacramento, CA. ———. 2007b. P-3 Report: *Population Projections for California and Its Counties 2000-2050, by Age, Gender and Race/Ethnicity*. Sacramento, CA. July. ———. 2007c. *E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2007, with 2000 Benchmark*. May. Democratic Research Unit. Sacramento, CA. Available: <<http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E5/E5-06/E-5text2.asp>>. Accessed: August 1, 2007.
- . 2007d. *E-4 Population Estimates for Cities, Counties and State, 2001-2007 with 2000 DRU Benchmark*. Available: <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E4/E4-01-06/documents/Hist_E-4.xls>.
- . 2007e. *P3 Population Projections by Race/Ethnicity for California and Its Counties 2000-2050, with 2000 Benchmark*. Available: <http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Projections/P1/documents/P-1_Tables.xls>. Accessed: July 24, 2007.
- . 2007f. *Table E-1: Population Estimates for Cities, Counties and the State with Annual Percent Change—January 1, 2006 and 2007*. Available: <<http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E1/E-1text.asp>>. Accessed: July 30, 2007.
- California Department of Fish and Game. 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawk (*Buteo swainsoni*) in the Central Valley of California. November 1. Sacramento, CA.
- . 1995. Staff Report on burrowing Owl Mitigation. September 25. Sacramento, CA.

- . 2005. California Wildlife habitat Relationships version 8.1 personal computer program. California Interagency Wildlife Task Group. Sacramento, CA.
- . 2006. *Special Animals List*. Available: <<http://www.dfg.ca.gov/whdab/pdfs/spanimals.pdf>>.
- California Department of Food and Agriculture. 2006. *California Agricultural Resource Directory 2006 (2005 Crop Year Production Information)*. Sacramento, CA. Available: <<http://www.cdffa.ca.gov/Statistics.html>>. Accessed: April 25, 2007.
- California Department of General Services, Office of Public School Construction. 2003. *Project Tracking System: School Facility Program: Search by County*. Available: <http://www.applications.dgs.ca.gov/OPSC/PT/SFP/SFP_projects.asp?dist_code=71134&dist_name=Keyes%20Union%20Elementary&co_name=Stanislaus&co_code=50>. Accessed: August 1, 2007.
- California Department of Transportation. 2007. Officially Designated State Scenic Highways. Available: <<http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm>>. Accessed: May 14, 2007.
- California Department of Water Resources. 1997. Final Report of the Flood Emergency Action Team. Available: <<http://rubicon.water.ca.gov/FEATReport120fdr>>. Sacramento, CA.
- . 2005. *California Water Plan Update*, Bulletin 160. Available: <<http://www.waterplan.water.ca.gov/previous/cwpu2005/index.cfm>>.
- . 2007a. *California Land & Water Use: Annual Land & Water Use Data, Crop Water Use*. Sacramento, CA. Available: <<http://www.landwateruse.water.ca.gov/annualdata/agwateruse/aglevels.cfm>>. Accessed: May 3, 2007. ———. 2007b. Groundwater level data. Available: <<http://wdl.water.ca.gov/gw/>>. Accessed: June 15, 2007.
- California Energy Commission. 1993. *Energy Aware Planning Guide*. Available: <<http://www.energy.ca.gov/reports/70093001.PDF>>. Accessed: July 24, 2007. ———. 2000. *California Natural Gas Analysis and Issues*. Available: <http://www.energy.ca.gov/reports/2000-11-22_200-00-006.PDF>. Accessed: July 24, 2007.
- . 2003. *Liquefied Natural Gas in California: History, Risks, and Siting*. Available: <http://www.energy.ca.gov/reports/2003-07-17_700-03-005.PDF>. Accessed: July 24, 2007.
- . 2005a. *U.S. Per Capita Electricity Use By State in 2005*. Available: <http://www.energy.ca.gov/electricity/us_per_capita_electricity_2005.html>. Accessed: July 30, 2007.
- . 2005b. *U.S. Per Capita Natural Gas Use By State in 2005*. Available: <http://www.energy.ca.gov/naturalgas/statistics/per_capita_natural_gas_use_2005.html>. Accessed: July 30, 2007.
- . 2005c. *California Energy Demand 2006–2016 Staff Energy Demand Forecast: Revised September 2005*. Available: <http://www.scag.ca.gov/rcp/pdf/publications/2_2006_2016EnergyDemand_CECrev.pdf>. Accessed: July 30, 2007.

- . 2005d. *Integrated Energy Policy Report*. Available:
<<http://www.energy.ca.gov/energypolicy/index.html>>. Accessed: July 24, 2007.
- . 2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. Sacramento, CA. December 2006.
- . 2007. *The Role of Land Use in Meeting California's Energy and Climate Change Goals*. Final Staff Report. CEC-600-2007-008-SR. Sacramento, CA. August 2007.
- California Geological Survey. 2007. *Seismic Hazards Mapping Program*. Available:
<<http://www.conservation.ca.gov/cgs/rghm/psha/Pages/index.aspx>>. Accessed: June 2007.
- California Integrated Waste Management Board. 2004a. *Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility for the City of Modesto*. Updated Daily. Available:
<<http://www.ciwmb.ca.gov/lgcentral/drs/reports/JurDspFa.asp?VW=Out>>. Accessed: July 20, 2007.
- . 2004b. *Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility for Stanislaus County Regional Solid Waste Planning Agency*. Updated daily. Available:
<<http://www.ciwmb.ca.gov/lgcentral/drs/reports/JurDspFa.asp?VW=Out>>. Accessed: July 20, 2007.
- . 2006a. *Board Approved/Accepted Diversion Rate Report for Modesto—2004 Reporting Year*. Last revised: January 23, 2007. Available:
<<http://www.ciwmb.ca.gov/lgtools/MARS/JurDrDtl.asp?Flag=1&Ju=308&Yr=2004>>. Accessed: June 14, 2007.
- . 2006b. *Board Approved/Accepted Diversion Rate Report for Stanislaus County Regional Solid Waste Planning Agency—2004 Reporting Year*. Last revised: January 23, 2007. Available:
<<http://www.ciwmb.ca.gov/lgtools/mars/DRMCMMain.asp?VW=In>>. Accessed: July 20, 2007.
- . 2007a. *Jurisdiction Planning Profile Overview and Jurisdiction Disposal for the City of Modesto*. Last revised: May 7, 2007. Available:
<<http://www.ciwmb.ca.gov/Profiles/Juris/JurProfile1.asp?RG=C&JURID=308&JUR=Modesto>>. Accessed: June 11, 2007.
- . 2007b. *Active Landfills Profile for Forward Landfill, Inc.* Last revised: May 7, 2007. Available:
<<http://www.ciwmb.ca.gov/Profiles/Facility/Landfill/LFProfile1.asp?COID=39&FACID=39-AA-0015>>. Accessed: July 9, 2007.
- . 2007c. *Active Landfills Profile for Bonzi Sanitary Landfill*. Last revised: May 7, 2007. Available:
<<http://www.ciwmb.ca.gov/Profiles/Facility/Landfill/LFProfile1.asp?COID=50&FACID=50-AA-0003>>. Accessed: July 23, 2007.
- California Native Plant Society. 2007. *Inventory of Rare and Endangered Plants (Online Edition)*. Available: <<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>>. Accessed: August 1, 2007.
- California Natural Diversity Database. 2007. *RareFind 3, (September 2006 Version)*. Sacramento, CA: California Department of Fish and Game. Search of Manteca, Avenal, Escalon, Oakdale, Ripon, Salida, Riverbank, Waterford, Westley, Brush Lake, Ceres, and Denair 7.5-minute quadrangles.

- California Public Utilities Commission. 2001. *California Natural Gas Infrastructure Outlook 2002–2006*. Available: <http://www.cpuc.ca.gov/published/report/natural_gas_report.htm>. Accessed: July 24, 2007.
- Carollo Engineers. 2007a. *Wastewater Master Plan Phase 2 Update, Master Plan Report*. Prepared for the City of Modesto, Modesto, CA. March 2007.
- . 2007b. *Wastewater Collection System Master Plan*. Prepared for the City of Modesto, Modesto, CA. March 2007.
- Central Valley Regional Water Quality Control Board. 2007. *The Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin*. Fourth Edition. Revised February 2007, with approved amendments. Available: <http://www.swrcb.ca.gov/rwqcb5/available_documents/basin_plans/SacSJR.pdf>. Accessed: May 7, 2007.
- City of Modesto. 1997. *Draft Turlock Groundwater Basin Groundwater Management Plan*. Modesto, CA.
- . 2000a. *City of Modesto Water Division Consumer Confidence Report*. Modesto, CA.
- . 2000b. City of Modesto Stormwater Management Program, *Guidance Manual for New Development, Stormwater Quality Control Measures* (draft no. 1). Operations and Maintenance Department. June. Modesto, CA.
- . 2001a. City of Modesto Stormwater Management Program: Guidance Manual for New Development Stormwater Quality Control Measures. January. Modesto, CA. ———. 2001b. *City of Modesto Strategic Plan: Economic Development Action Plan*. Available: <http://www.ci.modesto.ca.us/cmo/stplan/pdf/01sp_ed.pdf>. Accessed: August 9, 2007.
- . 2003a. *City of Modesto Urban Area General Plan*. Adopted August 15, 1995, by Modesto City Council Resolution No. 94-4091. Amended March 4, 2003, by Resolution No. 2003-122.
- . 2003b. Final Master Environmental Impact Report for the Urban Area General Plan and Related Amendments to the Urban Area General Plan. Prepared by Jones & Stokes. February. Modesto, CA. ———. 2003c. Urban growth policy review update. Available: <<http://www.ci.modesto.ca.us/ced/documents/urban-area.asp>>. Accessed: August 2, 2007.
- . 2007a. *City of Modesto Economic Development: Largest Employers*. Available: <<http://www.modestogov.com/ed/workforce/employers.asp>>. Accessed: January 3, 2008.
- . 2007b. Modesto City–County Airport webpage. Available: <<http://www.modairport.com>>. Accessed: December 16, 2007.
- . 2007c. *City of Modesto Urban Area General Plan*. Modesto, CA.
- . 2007d. *City of Modesto Municipal Code*. Available: <<http://www.ci.modesto.ca.us/ccl/municode/>>. Accessed: August 9, 2007.

- City of Modesto Fire Department. 2005. *Annual Report 2005*. Available: <http://www.modestofire.com/Documents/YearEnd/2005.pdf>. Accessed: April 27, 2007. Modesto, CA.
- . 2007. Frequently Asked Questions. Available: <http://www.modestofire.com/FAQ.asp>. Accessed: April 27, 2007. Modesto, CA. City of Modesto and Modesto Irrigation District. 2007a. *Joint Urban Water Management Plan 2005 Update*. March. Available: <http://www.ci.modesto.ca.us/pwd/uwmp2005/>. Accessed: May 3, 2007.
- . 2007b. *Joint Urban Water Management Plan 2005 Update Final Report*. May. Modesto, CA.
- . 2008a. *Draft Master Environmental Impact Report for the Urban Area General Plan Update*. State Clearinghouse #2007072023. Modesto, CA.
- . 2008b. *Urban Area General Plan*. Public Review Draft. March. Modesto, CA.
- City of Modesto, Public Works Department. 2007. *Water Meter Installation Plan*. Available: <http://www.ci.modesto.ca.us/pwd/meters/>. Accessed: August 7, 2007. Coffman Associates. 2007. *Modesto City-County Airport Part 150 Study (draft)*. Available: <http://www.coffmanassociates.com/public/Modesto>.
- Covanta Stanislaus, Inc. 2007. *The Stanislaus Resource Recovery Facility*. Available: <http://www.covantaholding.com/site/locations/covanta-stanislaus.html>. Accessed July 20, 2007.
- Department of Toxic Substances Control. 2007. EnviroStor database: hazardous waste and substances site list. Available: http://www.dtsc.ca.gov/database/Calsites/Cortese_List.cfm. Accessed: May 28, 2007.
- EDAW and SCS Engineers. 2001. *Draft Environmental Impact Report for the Fink Road Landfill Expansion Project*. November 7. Sacramento, CA.
- Edwards, Stephen W. 1991. Observations on the prehistory and ecology of grazing in California. *Fremontia* 20(1):3-11.
- Environmental Sciences Associates. 1996. *Potential Wetlands and Vernal Pool Special-Status Species at the Site of the Proposed Modesto Amtrak Station Report*. Sacramento, CA.
- Ewing, R., K. Bartholomew, S. Winkelman, J. Walters, and D. Chen. 2007. *Growing Cooler: The Evidence on Urban Development and Climate Change*. Urban Land Institute. Washington, D.C.
- Federal Emergency Management Agency. 2001a. Flood Insurance Rate Maps (FIRMs). Community-Panel Number 060387 0005D. Available: <http://www.fema.gov/hazard/map/firm.shtm>. Last updated: May 7, 2001. Accessed: April 26, 2007.
- . 2001b. Flood Insurance Rate Maps (FIRMs). Community-Panel Number 060387 0015D. Available: <http://www.fema.gov/hazard/map/firm.shtm>. Updated: May 7, 2001. Accessed: April 26, 2007.

- . 2001c. Flood Insurance Rate Maps (FIRMs). Community-Panel Number 060387 0020D. Available: <<http://www.fema.gov/hazard/map/firm.shtm>>. Updated: May 7, 2001. Accessed: April 26, 2007.
- Fredrickson, D. A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation. Department of Anthropology, University of California, Davis.
- Galvez, Miguel. 2006. *Memorandum: Final Memo on Projected General Plan Buildout Population of the SOI*. May 4. Modesto, CA: City of Modesto Senior Planner.
- Governor's Office of Planning and Research. 2003. General Plan Guidelines. Sacramento, California. October 2003.
- Grinnell, J., and A. H. Miller. 1986. *The Distribution of the Birds of California*. Pacific Coast Avifauna No. 27, publ. 1944, reprinted by Artemisia Press, Lee Vining, CA. Hart, E. W., and W. A. Bryant. 1997. *Fault-Rupture Hazard Zones in California—Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*. (Special Publication 42.) Sacramento, CA: California Division of Mines and Geology.
- Hart-Ransom Union School District. 2005. *Hart-Ransom Academic Charter School: 2004-2005 School Accountability Report Card*. Available: <http://www.hartransom.org/District_Info/HR%20Charter%2004-05.pdf>. Accessed: August 1, 2007.
- . 2006. Hart-Ransom Elementary School: School Accountability Report Card: Data from the 2005-2006 School Year Published During 2006-2007. Accessed: August 1, 2007. Available: <http://www.hartransom.org/District_Info/06_Hart-Ransom%20UESD_Hart-Ransom%20ES.pdf>.
- Haug, E. A., B. A. Milsap, and M. S. Marnell. 1993. *The Birds of North America*, No. 61 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- Holland, V.L., and D.J. Keil. 1989. *California vegetation*. California Polytechnic State University. San Luis Obispo, CA. ICF Consulting. 2005. *Long Term Crude Oil Supply and Prices*. Prepared for the California Energy Commission. Fairfax, VA. Available: <<http://www.energy.ca.gov/2005publications/CEC-600-2005-031/CEC-600-2005-031.PDF>>. Accessed July 24, 2007.
- International Conference of Building Officials. 1997. *Uniform Building Code*. Whittier, CA.
- J.K., Inc. 2007. *Economic Profile: San Joaquin Valley Region*. Prepared for the California Regional Economies Project. Available: <<http://www.labor.ca.gov/panel/pdf/SanJoaquinValleyRegionEconomicProfile2007.pdf>>. Accessed: January 3, 2008.
- Jameson, E. W., Jr. and H. J. Peeters. 1988. *California Mammals*. University of California Press, Berkeley, CA.
- Jennings, M. R., and M. P. Hayes. 1994. *Amphibian and Reptile Species of Special Concern in California*. Final report. Rancho Cordova, CA: California Department of Fish and Game, Inland

- Fisheries Division. Kohler, Susan. 2005. *California Non-Fuel Minerals 2005*. Available: <http://www.consrv.ca.gov/cgs/minerals/min_prod/Documents/non_fuel_2005.pdf>. Accessed: July 27, 2007.
- . 2006. *California Non-Fuel Minerals 2006*. Available: <http://www.consrv.ca.gov/cgs/minerals/min_prod/Documents/non_fuel_2006.pdf>. Accessed: July 27, 2007.
- MacWhirter, R. B., and K. L. Bildstein. 1996. Northern Harrier, *Circus cyaneus*. In A. Poole and F. Gill (eds.) *The Birds of North America*, No. 210. The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- Mayer, K. E., and W. F. Laudenslayer, Jr. 1988. *A Guide to Wildlife Habitats of California*. California Department of Forestry and Fire Protection, Sacramento, CA.
- Modesto City Schools. 2006. *Modesto City Schools Bond Project Updates*. Available: <<http://www.monet.k12.ca.us/mcsnew/publicinfo/Bond%20Projects%20-%20%20Update%209-26-06.pdf>>. Accessed: August 1, 2007.
- Modesto Fire Department. 2008. *Strategic Plan: Fiscal Year 2008 through 2012*. Available: <<http://www.modestofire.com/Documents/MFD%20Strategic%20Plan.pdf>>. Accessed: July 11, 2008.
- Moratto, M. J. 2004. *California Archaeology*. New York: Academic Press, Inc., 1984. Salinas, CA: Coyote Press.
- Moyle, P. B., J. E. Williams, and E. D. Wikramanayake. 1989. Fish species of special concern of California. Prepared for the California Department of Fish and Game, Sacramento, CA.
- Nagano, C. 1992. Endangered and Threatened Wildlife and Plants; Proposal to Determine Endangered Status for Four Fairy Shrimp and the Vernal Pool Tadpole Shrimp in California. *Federal Register*, Volume 57, No. 90, Friday, May 8, 1992, Proposed Rules.
- Natural Resources Conservation Service. 2007. *Official Soil Series Descriptions (OSD) with series extent mapping capabilities*. Soil Survey Staff. Available: <<http://soils.usda.gov/technical/classification/osd/index.html>>. Accessed: January 3, 2008.
- Norris, R. M., and R. W. Webb. 1990. *Geology of California* (2nd edition). New York, NY: John Wiley & Sons. Page, R. W. 1986. *Geology of the Fresh Groundwater Basin of the Central Valley, California, with Texture Maps and Sections*. U.S. Geological Survey Professional Paper 1401. U.S. Government Printing Office. Washington, D.C.
- Pierson, E.D. 1988. *The status of Townsend's Big-eared Bat (Plecotus townsendii) in California*. California Department of Fish and Game. Sacramento, CA.
- Remsen, J. V., Jr. 1978. *Bird Species of Special Concern in California: An Annotated List of Declining or Vulnerable Bird Species*. (Wildlife Management Branch Administrative Report No. 78-1.) Sacramento, CA: California Department of Fish and Game, Nongame Wildlife Investigations.
- Robinson, A.Y. 1990. *Sustainable Agriculture: A Brighter Outlook for Fish and Wildlife*. Izaak Walton League of America. Arlington, VA.

- Rosenfield, R. N., and J. Bielefeldt. 1993. Cooper's Hawk (*Accipiter cooperii*). In A. Poole and F. Gill (eds.), *The Birds of North America*, No. 75. Academy of Natural Sciences, Philadelphia, and American Ornithologists' Union, Washington, D.C.
- San Joaquin Valley Air Pollution Control District. 2002. *Amended 2002 and 2005 Rate of Progress Plan for San Joaquin Valley Ozone*. December. Fresno, CA. Available: <<http://www.valleyair.org/Workshops/postings/1-23-03/2002%20and%202005%20Rate%20of%20Progress.pdf>>. Accessed: July 24, 2007.
- . 2005. *Air Quality Guidelines for General Plans*. June. Fresno, CA.
- Sanborn Map Company. 1885–1911. *Modesto*. On file at the Los Angeles County Library, Los Angeles County Library, Los Angeles, CA.
- Stanislaus Council of Governments. 2007. *2007 Regional Transportation Plan*. Modesto, CA.
- . 2008a. *2008 Regional Transportation Improvement Program: Fiscal Years 2008/2009 through 2012/2013*. Modesto, CA. Available: <<http://www.stancog.org/pdf/rtp/2008/rtp-2008.pdf>>. Accessed: July 11, 2008.
- . 2008b. *2008 Regional Transportation Improvement Program: Fiscal Years 2008/2009 through 2012/2013*. Modesto, CA.
- . 2008c. *Preliminary Design Report to Request Programming for Project Approval and Environmental Document Phase in the 2008 STIP*. April. Modesto, CA. Available: <<http://www.stancog.org/pdf/final-signed-pdr-5-12-2008.pdf>>. Accessed: July 14, 2008.
- Stanislaus County. 1987. *Stanislaus County General Plan Support Documentation*. Chapter V: Safety. Adopted: June. California.
- . 2006. General Plan Noise Element. Available: <<http://www.stancounty.com/planning/pl/gp/gp-chapter4.pdf>>
- . 2005. Stanislaus County General Plan Update. Technical Reference Document for Noise Analysis. November 25, 2005. Available: <<http://www.stancounty.com/planning/pl/gp/gp-sd-chapter4.pdf>>.
- . 2006. *Stanislaus County General Plan*. Amended: April 18, 2006. Modesto, CA.
- . 2007. Environmental Resources Department site. Available: <<http://www.stancounty.com/er/ast-programs.shtm>>. Accessed: September 6, 2007, by Terry Rivasplata.
- Stanislaus County Airport Land Use Commission. 2004. *Airport Land Use Commission Plan*. Amended: May 20, 2004. Available: <<http://www.co.stanislaus.ca.us/planning/AlucPDF/ALUCPlan.pdf>>.
- Stanislaus Local Agency Formation Commission. 2007. Countywide Fire Services Municipal Service Review Final Report. Prepared by Emergency Services Consulting, Inc. Wilsonville, Oregon.

- Stanley, J. T., B. Mori, and D. L. Suddjian. 1991. The importance of riparian vegetation for wildlife in California: a literature synthesis. The Habitat Restoration Group. Felton, CA. Prepared for the National Park Service Rivers and Trails Conservation Assistance Program.
- Stebbins, R. C. 1985. *Western Reptiles and Amphibians*. Easton Press, Norwalk, Connecticut.
- . 2003. *A Field Guide to Western Reptiles and Amphibians*. Third edition. Houghton Mifflin, New York.
- Steinhart, P. 1990. *California's Wild Heritage: Threatened and Endangered Animals in the Golden State*. California Department of Fish and Game.
- Stendell, R. C., and P. Myers. 1973. White-tailed kite predation of a fluctuating vole population. *Condor*, No. 75.
- Turnstone Consulting. 2006. *City of Modesto Wastewater Master Plan Update Draft EIR*. Prepared for the City of Modesto. December. U.S. Army Corps of Engineers. 1999. *Sacramento and San Joaquin River Basins, California—Flood Control Assessment*. Sacramento District, Sacramento, CA.
- U.S. Census Bureau. 2002. *Census 2000 Summary File 3*. Washington, D.C.
- U.S. Department of Agriculture. 1964. *Soil Survey of the Eastern Stanislaus Area, California*.
- U.S. Environmental Protection Agency. 2006. Proposed 2006 CWA California Section 303(d) List of Water Quality Limited Segments. Central Valley Regional Water Quality Control Board. Approved by SWRCB on October 25, 2006. Available: http://www.waterboards.ca.gov/tmdl/docs/303dlists2006/final/r5_final303dlist.pdf. Accessed: May 7, 2007.
- . 2007a. *NPDES Permits and Stormwater. Featured Story: Stormwater Runoff*. Available: <http://www.epa.gov/region09/water/npdes/stormwater-feature.html>. Accessed: January 3, 2008.
- . 2007b. Modesto Groundwater Contamination. Available: <http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/webdisplay/oid-5ae36c6db86086848825660b007ee662?OpenDocument#descr>. Accessed: July 31, 2007.
- U.S. Fish and Wildlife Service. 2005. 50 CFR Part 17. Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants; Final Rule 7117 to 7316. U.S. Geological Survey. 1999. The Mineral Industry of California. In *Minerals Yearbook, Volume II, Area Reports: Domestic*. GPO Stock #024-004-02506-9. Available: <http://minerals.usgs.gov/minerals/pubs/state/ca.html>. Accessed: July 27, 2007.
- . 2000. The Mineral Industry of California. In *Minerals Yearbook, Volume II, Area Reports: Domestic*. GPO Stock #024-004-02518-2. Available: <http://minerals.usgs.gov/minerals/pubs/state/ca.html>. Accessed: July 27, 2007.
- . 2001. The Mineral Industry of California. In *Minerals Yearbook, Volume II, Area Reports: Domestic*. GPO Stock #024-004-02528-0. Available: <http://minerals.usgs.gov/minerals/pubs/state/ca.html>. Accessed: July 27, 2007.

- . 2002. The Mineral Industry of California. In *Minerals Yearbook, Volume II, Area Reports: Domestic*. GPO Stock #024-004-02536-1. Available:
<<http://minerals.usgs.gov/minerals/pubs/state/ca.html>>.. Accessed: July 27, 2007.
- . 2003. The Mineral Industry of California. In *Minerals Yearbook, Volume II, Area Reports: Domestic*. GPO Stock #024-004-02543-3. Available:
<<http://minerals.usgs.gov/minerals/pubs/state/ca.html>>. Accessed: July 27, 2007.
- . 2004. The Mineral Industry of California. In *Minerals Yearbook, Volume II, Area Reports: Domestic*. GPO Stock #024-004-02555-7. Available:
<<http://minerals.usgs.gov/minerals/pubs/state/ca.html>>. Accessed: July 27, 2007.
- . 2007. *The Severity of an Earthquake*. Available:
<<http://pubs.usgs.gov/gip/earthq4/severitygip.html>>. Accessed: June 15, 2007.
- Wallace, W. J. 1978. Northern Valley Yokuts. In R. F. Heizer, vol. ed., *Handbook of North American Indians, Vol. 8: California*:462–470. Washington, D.C.: Smithsonian Institution.
- Warner, J. S. and R. L. Rudd. 1975. Hunting by the White-tailed Kite. *Condor* 77: 226–230.
- Whitaker, J. O., Jr. 1980. *The Audubon Society Field Guide to North American Mammals*. Alfred A. Knopf, New York, NY.
- Williams, D. F. 1986. *Mammalian Species of Special Concern in California*. (Wildlife Management Division Administrative Report 86-1.) Sacramento, CA: California Department of Fish and Game, Wildlife Management Division. Wood, H. O., and F. Neumann. 1931. Modified Mercalli Intensity Scale of 1931. *Bulletin of the Seismological Society of America* 21:277–283.
- Yosef, R. 1996. Loggerhead shrike (*Lanius ludovicianus*). Poole A. and F. Gill, eds. *The Birds of North America*, No.231. The Academy of Natural Sciences, Philadelphia, and The American Ornithologists. Union, Washington, D.C.
- Zeiner, D. C., W. F. Laudenslayer, Jr., and K. E. Mayer (eds.). 1988. *California's Wildlife, Amphibians and Reptiles*, Vol. 1. California Department of Fish and Game, Sacramento, CA.
- . 1990. California's wildlife. Volume II. Birds. California Statewide Wildlife Habitat Relationships System, California Department of Fish and Game, Sacramento, CA.

B. PERSONAL COMMUNICATIONS

- Allen, F. Landscape architect. City of Modesto Parks, Recreation and Neighborhoods Department, Modesto, CA. August 6, 2007—phone conversation.
- Ballard, Charyle. Administrative Assistant. Paradise Elementary School District, Modesto, CA. May 18, 2007—email to Jessica Hankins.
- Chavez, Yvonne. Maintenance and Operations Administrative Assistant. Stanislaus Union School District, Modesto, CA. May 17, 2007—telephone conversation with Jessica Hankins.

- Dodge, Tami. Senior Administrative Assistant. Modesto Police Department: Chief's Office, Modesto, CA. August 6, 2007—phone conversation regarding police department office locations.
- Findlen-Costa, Polly. Business Services Manager. Modesto Police Department, Modesto, CA. July 24, 2007—telephone conversation regarding resident-to-officer ratios and response times.
- Gilton, Mike. Senior Civil Engineer. City of Modesto Engineering and Transportation Department. October 3, 2000—telephone conversation regarding drainage master plan.
- Grider, Ron. Fink Road Landfill, Sanitary Landfill Division. Stanislaus County. June 11, 2007—phone conversation with Sandy Devoto of Jones & Stokes, regarding remaining capacity and closure date.
- Houx, Nathan. Project coordinator. City of Modesto Parks, Recreation and Neighborhoods Department, Modesto, CA. May 11 and 25, and July 25, 2007—email correspondence.
- Jantz, W. Richard, Deputy Executive Officer and Arlene Stevens, Associate Management Consultant. Stanislaus County Environmental Review Committee. January 17, 2002—letter to Patrick Kelly of the City of Modesto.
- Ketscher, Bill. Civil Engineer/Manager. Modesto Irrigation District. September 27, 2000—telephone conversation regarding stormwater drainage.
- Kiger, Don. Assistant Superintendent, Business Services. Empire Union School District, Modesto, CA. May 21, 2007—telephone conversation with Jessica Hankins.
- Kumimoto, Bryan. Senior Resource Management Specialist, Stanislaus Regional Solid Waste Planning. July 20, 2007—phone conversation with Beth Eggerts of Jones & Stokes, regarding Stanislaus County diversion rates.
- McClellon, Robert. Environmental Health Department, County of San Joaquin. July 23, 2007—phone conversation with Beth Eggerts of Jones & Stokes, regarding remaining capacity of Forward Landfill, Inc.
- McGarry, Dana. Director, Planning and Research. Modesto City Schools, Modesto, CA. August 23, 2007—email to Jessica Hankins.
- Patenaude, Tim. Senior Hazardous Substances Engineer. Department of Toxic Substances Control, Sacramento, CA. February 14, 2007—letter to Michael Bowles, Gallo Glass, Modesto, CA; and September 7, 2007—email to Andrew Martin, Jones & Stokes.
- Perry, Ed. Stanislaus County Director and Farm Advisor. University of California Cooperative Extension, Stanislaus County, Modesto, CA. May 4, 2007—e-mail to Jessica Hankins.
- Reed, Jocelyn. Acting Solid Waste Program Manager, City Of Modesto Solid Waste. July 24, 2007—phone conversation with Beth Eggerts of Jones & Stokes, regarding solid waste generation for the City of Modesto.
- Rivera, John. City of Modesto Public Works Department, Modesto, CA. January 24, 2008—personal communication with Terry Rivasplata of Jones & Stokes.

Rodriguez, Karin. Solid Waste Management Department, City of Modesto, Modesto, CA. June 8 and 11, 2007, and July 19, 2007—phone conversations and email exchange with Sandy Devoto and Beth Eggerts of Jones & Stokes, regarding update on solid waste generation for the City of Modesto.

Silva, Lucy. Secretary, Business Services Department. Salida Union School District, Salida, CA. May 17, 2007—telephone conversation with Jessica Hankins.

Speed, Paul. Director of Facilities and Construction. Sylvan Union School District, Modesto, CA. May 18, 2007—email to Jessica Hankins; August 22, 2007—telephone conversation with Jessica Hankins.

Wall, Pamela. Assistant Superintendent of Business Services. Empire Union School District, Modesto, CA. August 22, 2007—telephone conversation with Jessica Hankins.

Wasden, Roy. Modesto Police Department, Modesto, CA.. May 14, 2007—email exchange.

Wilhelm, Karen. Business Manager. Covanta Stanislaus, Inc. July 20, 2007—phone conversation with Beth Eggerts of Jones & Stokes, regarding operation dates and new company name.

Yekta, Gino. Integrated Waste Management Engineer, Forward Landfill, Inc. July 20, 2007—phone conversation with Beth Eggerts of Jones & Stokes, regarding remaining capacity and expansion plans for the landfill.

Appendix A. Traffic Appendix

Dowling Associates, Inc.

Transportation Engineering • Planning • Research • Education

TRANSPORTATION PLANNING
PARTNERSHIP GROUP

2007 COUNTYWIDE
MODEL PROJECT

VERSION 1.0
USER GUIDE
(DRAFT)

Stanislaus County Association of Governments
www.STANCOG.org

June 25, 2007

Table of Contents

1.	Introduction and Summary	4
1.1	Model Software.....	4
1.2	Transportation Conformity Rule Modeling Requirements	7
1.3	Procedures to “Run the Model”	8
2.	Model Study Area and Zone System.....	11
2.1	Internal Zones	11
2.2	External Zones	12
3.	Using TP+.....	13
3.1	Required Resources:	13
3.2	Directories.....	14
3.3	TPPG Model Files	14
3.4	Model Application	15
4.	Modifying the Roadway Network	17
4.1	Road Network Elements	17
4.2	“Master” Roadway Network.....	17
4.3	Final Combined Loaded Network.....	27
4.4	Transit Network	28
5.	Land Use / External Trip Assumptions	29
5.1	Household Cross Classification Data	29
5.2	Modifying Land Use Assumptions	32
5.3	Using Special Generators.....	33
5.4	External Trips.....	34
5.5	Creating New Scenarios.....	35
6.	Mode Choice Changes	37
6.1	Transit Factors	37
7.	Special Assignments	40
7.1	Intersection Turn Volumes	40
7.2	Select Link Analysis	40
7.3	Select Zone Analysis.....	42
8.	Adjustment of Results	44
8.1	Turn Movements.....	44
9.	Reporting the Results	48
9.1	Viewing and Plotting Model Data	48
9.2	Posting Volumes on Loaded Networks.....	50
10.	The Forecasting Process - Trip Generation	51
10.1	Trip Stratification.....	51
10.2	Trip Generation Rates (Person Trips)	52
10.3	Cordon or “Gateway” Trips	56
10.4	Special Generators	56
11.	The Forecasting Process - Trip Distribution.....	58
11.1	Description of Gravity Model.....	58

11.2	Zone-To-Zone Travel Times.....	59
11.3	Friction Factors	59
11.4	Adjustment Factors	59
12.	The Forecasting Process - Trip Assignment.....	60
12.1	Traffic Assignment	60
12.2	Pricing.....	61
13.	The Forecasting Process - Feedback Mechanisms.....	62
13.1	TPPG Model Feedback Loop.....	62
14.	The Forecasting Process - Peaking Factors	64
14.1	Time-of-Day Factors.....	64

List of Figures

Figure 1 - TPPG Travel Demand Model Process	6
Figure 2 - Sample Master Directory	9
Figure 3 TPPG Travel Demand Model TAZs and Gateways	12
Figure 4 - Example of Master Network Coding	19
Figure 5 - Job Script Code Lines to Build Future Year Network	21
Figure 6 - Creating Future Year Networks	22
Figure 7 - Viper Display of Link Data.....	23
Figure 8 - Turn Penalty Dialog Box	25
Figure 9 - Portion of the 2025 (General Plan Year) Land Use Database	33
Figure 10 - Sample Jobstream for Turning Volumes & Select Link Analysis	41
Figure 11 - Sample Jobstream for Select Zone Analysis.....	43

List of Tables

Table 1 TAZ Numbering Ranges.....	11
Table 2 - TPPG Model Input Files.....	15
Table 3 - Capacities and Speed-Delay Curves by Roadway Type	24
Table 4 - TPPG Loaded Network Link Attributes.....	28
Table 5 2005 Countywide Cross Classified Summary	31
Table 6 2025 Future Year Land Use Summaries.....	31
Table 7 2005 and 2025 (General Plan Year) Employment Summary	32
Table 8 2025 Special Generators	34
Table 9 - TPPG Vehicle Trips per Person Trip.....	37
Table 10 - TPPG Transit Service Factors	38

Table 11 Cross Classified Single Family Trip Generation Rates	53
Table 12 Cross Classified Multi-Family Trip Generation Rates	54
Table 13 Employment Trip Generation Rates	55
Table 14 Time of Day Factors	65

1. INTRODUCTION AND SUMMARY

The Transportation Planning Partnership Group (TPPG) Countywide travel forecasting model represents an multi-jurisdictional effort on the part of the California Department of Transportation (Caltrans), the Stanislaus County Council of Governments (StanCOG or COG) and the City of Modesto to integrate the two longstanding models used in the County for planning purposes: the City of Modesto General Plan Model and the StanCOG air quality model. This integrated countywide model was developed by obtaining up to date land use roadway and planning data and incorporating it into a model with improvements and functional extensions to both the City and the COG models that it is based upon.

1.1 Model Software

The TPPG model has been developed and is operable on the Cube/TP+ (Transportation Planning Plus) software platform. The model is fully compatible with the current version of Cube Software and is backwards compatible with TP+ 3.0. Cube/TP+ is a proprietary platform developed by Citilabs. Support for these packages and software upgrades are usually available on the Citilabs website at www.citilabs.com.

It is recommended for users to have access to Microsoft Excel to manipulate land use and other input files. Microsoft Excel is available from the Microsoft Corporation. Support and upgrades are available from www.microsoft.com. Microsoft Excel should be installed with Visual Basic for Applications included in the install for full functionality.

1.1.1 Model Coverage and Traffic Analysis Zones (TAZs)

The study area for the TPPG model covers all of Stanislaus County, including the incorporated areas. The county is broken up into approximately 2,500 traffic analysis zones (TAZs) including 50 gateways. The model has capacity for 3,200 zones through zone subdivision.

1.1.2 Socioeconomic Data / Land Use Inputs

The travel demand model land use inputs (socioeconomic data) by TAZ include population related data (household data, broken down by household type and auto-ownership and population estimates), and employment related data (broken down into five employment categories: retail, service, government, education, and other).

The starting point for the socioeconomic data by traffic analysis zone (TAZ) was the 2000 Census and the 2005 InfoUSA business survey (InfoUSA, 2006). Housing forecasts were adjusted to match countywide population controls from the California Department of Finance (DOF). Employment forecasts were adjusted to match countywide control totals provided by Woods and Poole, inc. and California Department of Finance projections.

Future year land use for the Modesto General Plan area were based on the 2003 General Plan MEIR land use assumptions with adjustments to the Village Residential land use to match updated City population projections. Land Use assumptions for the rest of the county were based on the 2005 update of the StanCOG model which incorporates countywide land use projections apportioned among the various jurisdictions by StanCOG staff.

1.1.3 Roadway Network Characteristics

The travel demand model roadway network includes over 10,000 nodes, and nearly 25,000 links. Links include: freeways, freeway ramps, highways (multi and two-lane), arterials, collectors, and rural roads. Important road network attributes include distances, uncongested speeds, and hourly capacities.

The model utilizes a coordinate system used for most GIS applications. The model network can be viewed together with other geographic information such as street maps, TAZ maps and census information using a GIS package such as ArcView or Viper. This improves the model estimates of link distances since the roadway network is spatially correct. The TAZ maps for the model are provided in PDF format and as GIS files supplied with the default model.

The travel demand model network link attribute assumptions were developed by analysis year based on StanCOG's Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP), local agency Capital Improvement Programs (CIP) as well as local jurisdiction general plans and circulation elements and guidance.

Separate transit networks have not been developed.

1.1.4 Forecasting Process

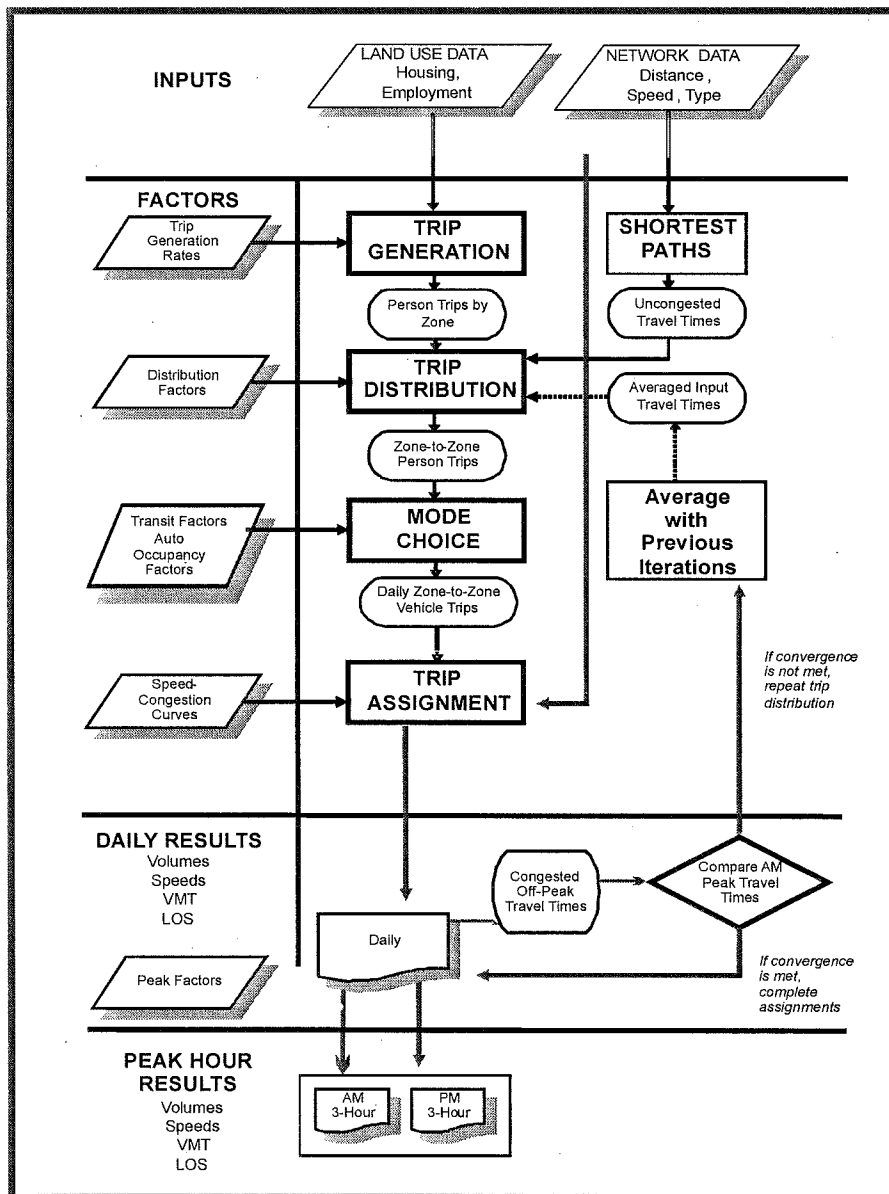
Four sequential steps (actually sub-models) are involved in the travel demand forecasting process:

- **Trip Generation.** This initial step translates household and employment data into person trip ends using trip generation rates established during model calibration.
- **Trip Distribution.** The second general step estimates how many trips travel from one zone to any other zone. The distribution is based on the number of trip ends generated in each of the two zones, and on factors that relate the likelihood of travel between any two zones to the travel time between the two zones.
- **Mode Choice.** This step estimates the proportions of the total person trips using single occupant vehicles and ridesharing modes for travel between each pair of zones. The TPPG model uses an adjustment procedure rather than a full mode choice analysis step.

- **Trip Assignment.** In this final step, vehicle trips from one zone to another are assigned to specific travel routes between the zones.

A flow chart of the TPPG model process is shown in Table 1.

Figure 1 - TPPG Travel Demand Model Process



1.1.5 Forecast Time Periods

The travel demand model currently estimates travel demand and traffic volumes for daily traffic, AM 1-hour peak period and PM 1-hour peak.

1.1.6 Feedback Loops

The TPPG travel model includes a feedback loop that uses the congested speeds estimated from traffic assignment to recalculate the trip distribution. The feedback loop repeats the process iteratively until the congested speeds and traffic volumes do not vary significantly between iterations. This ensures that the congested travel speeds used as input to the air quality analysis (outside the TPPG model) are consistent with the travel speeds used throughout the model process, as required by the Transportation Conformity Rule (40CFR Part 93).

1.1.7 Model Validation

The TPPG model was revalidated to 2005 daily and peak hour counts

The model estimates of 2005 daily volumes are within all of the FHWA percent difference targets by facility type. All model performance measure meet the FHWA criteria. Therefore, the model is considered acceptable based on FHWA guidelines. The model validation is presented in Appendix A.

1.1.8 Statewide Survey

The TPPG model uses a variety of inputs based upon the California 2001 statewide transportation survey. The survey results were combined for Stanislaus County with Merced County to the south and San Joaquin County to the north in order to increase the sample size (to roughly 1,500 responses versus only 500 for Stanislaus County by itself). The survey results form the basis for the friction factors, trip generation rates and peaking factors.

1.2 Transportation Conformity Rule Modeling Requirements

The TPPG model update and enhancements were designed to provide a network based travel model that meets the following Transportation Conformity Rule transportation modeling requirements for serious and above ozone and CO areas with an urbanized population over 200,000¹:

- i) Network-based models must be validated against observed counts (peak and off-peak, if possible) for a base year that is not more than ten years prior to the date of the conformity determination. Model forecasts must be analyzed for

¹ *Transportation Conformity Rule Amendments: Flexibility and Streamlining*, Federal Register: August 15, 1997, Volume 62, Number 158.

reasonableness and compared to historical trends and other factors, and the results must be documented.

- ii) Land use, population, employment, and other network-based model assumptions must be documented and based on the best available information.
- iii) Scenarios of land development and use must be consistent with the future transportation system alternatives for which emissions are being estimated. The distribution of employment and residences for different transportation options must be reasonable.
- iv) A capacity-restrained traffic assignment methodology must be used, and emissions estimates must be based on a methodology which differentiates between peak and off-peak volumes and speeds, and which uses speeds based on final assigned volumes.
- v) Zone-to-zone travel impedances used to distribute trips between origin and destination pairs must be in reasonable agreement with the travel times that are estimated from final assigned traffic volumes. Where use of transit currently is anticipated to be a significant factor in satisfying transportation demand, these times should also be used for modeling mode splits.
- vi) Network-based models must be reasonably sensitive to changes in the time(s), cost(s), and other factors affecting travel choices.

1.3 Procedures to “Run the Model”

Most of the travel demand model procedures have been programmed into the TPPG TP+ job script. Except for changing the selected year for the network build procedure; this job script should rarely have to be edited by the user. The user will usually be editing networks (to reflect the latest information about roadway facilities) and modifying land use assumptions (to reflect the latest information about development) and then simply applying the model.

The general procedure to apply (or run) the model includes:

1. Document all alternative assumptions
2. Copy master directory
3. Modify “master” network, if necessary
4. Modify the land use / trip generation, if necessary
5. Modify the TP+ job script, if necessary (e.g. change forecast year)
6. “Run” the model alternative
7. Adjust turn or link volumes as necessary
8. View and print the results

These steps are summarized here and discussed in more detail throughout this Users Guide.

1.3.1 Document all Alternative Changes

All assumptions for the alternative to be run should be adequately documented so that, after some time has gone by, a user can still identify the land use and network input sources. Network modifications should be noted on maps or network plots. Land use changes should be printed out and clearly marked. Ideally, all assumptions would be filed together so that they are easily accessible in the future.

1.3.2 Copy Master Directory

The generic TPPG model is stored in a master directory that includes the “Master” network, the land use / trip generation workbook, the TP+ job script, and all of the supporting files necessary to create a new model alternative. See Figure 2 for a sample master directory. In order to save the integrity of this data set, the user should make electronic copies of the input data files by copying the master directory to a new directory (i.e. folder). This can be done using Windows Explorer or other file management software.

If a model alternative is desired that is based on an already completed model run, simply copy the input files associated with the previous model alternative to a new directory and follow the same steps outlined below.

Figure 2 - Sample Master Directory

Name	↑Ext	Size
<DIR>		
Gate_2005_Unbal	dbf	7,718
tppg_2005_SpecGen	dbf	572
tppg2005_LU	dbf	844,949
transit_2005	dbf	197,341
Transit_2025	dbf	197,341
xClsPcts	dbf	342,596
ca05_SUB_XX	inp	769
ca05_XXAM	inp	713
ca05_XXPM	inp	750
ca25_SUB_XX	INP	783
ca25_XXAM	inp	717
ca25_XXPM	inp	723
KF_HW_61	inp	11,669
KF_NW_61	inp	11,669
MASTER	net	1,195,388
2005Penalties	pen	4,118
2005_TPPG_Master	s	73,580
ff_Stan	txt	7,959
TripRates	txt	5,108

1.3.3 Update Network

Use Viper to edit the master roadway network if necessary. This could include changing the number of lanes, adding freeway interchanges, and/or adding new zones with centroid connectors.

1.3.4 Update Land Use / Trip Generation

Use Excel to update the land use and trip generation workbook. Typical modifications would be: adding zones and redistributing land uses, adding project specific developments for traffic impact analyses, and creating interpolated land use scenarios for milestone-year models.

1.3.5 Update the TP+ Job script

Use Viper to modify the TP+ job script, if necessary. Typical modifications include entry of the correct forecast year (very important for network "extraction" from the "Master" network).

1.3.6 Apply the Model

Use TP+ to "run" the model alternative. The user launches the TP+ program and selects the appropriate job script for the "Input Job File", specifies the "Working Directory" and the "Project Prefix", and then clicks the "Start" button.

1.3.7 Adjust the Model Results

Although the TPPG model has been validated on screenlines and for overall fit, it is likely that the model will NOT be accurate enough in every location to reliably calculate level of service directly from raw model output. Therefore, it is recommended that adjustments be applied to model results prior to traffic operations analysis.

1.3.8 View and Report Model Results

There are a variety of ways to report the results of the TP+ traffic distribution and assignment, including Viper screen graphics, plots and printed reports.

2. MODEL STUDY AREA AND ZONE SYSTEM

The study area for the TPPG model covers all of Stanislaus County, including the cities of Modesto, Turlock, Ceres, Oakdale, Riverbank, Patterson, Hughson, Waterford and Newman. The county is broken up into approximately 2,500 traffic analysis zones (TAZs) with unused zones set aside for a total of 3,200 possible zones including gateways. Figure 4 shows the travel demand model TAZs.

The TAZ polygon shapefiles are maintained in ArcView and can be viewed in Viper. These are provided with the default model.

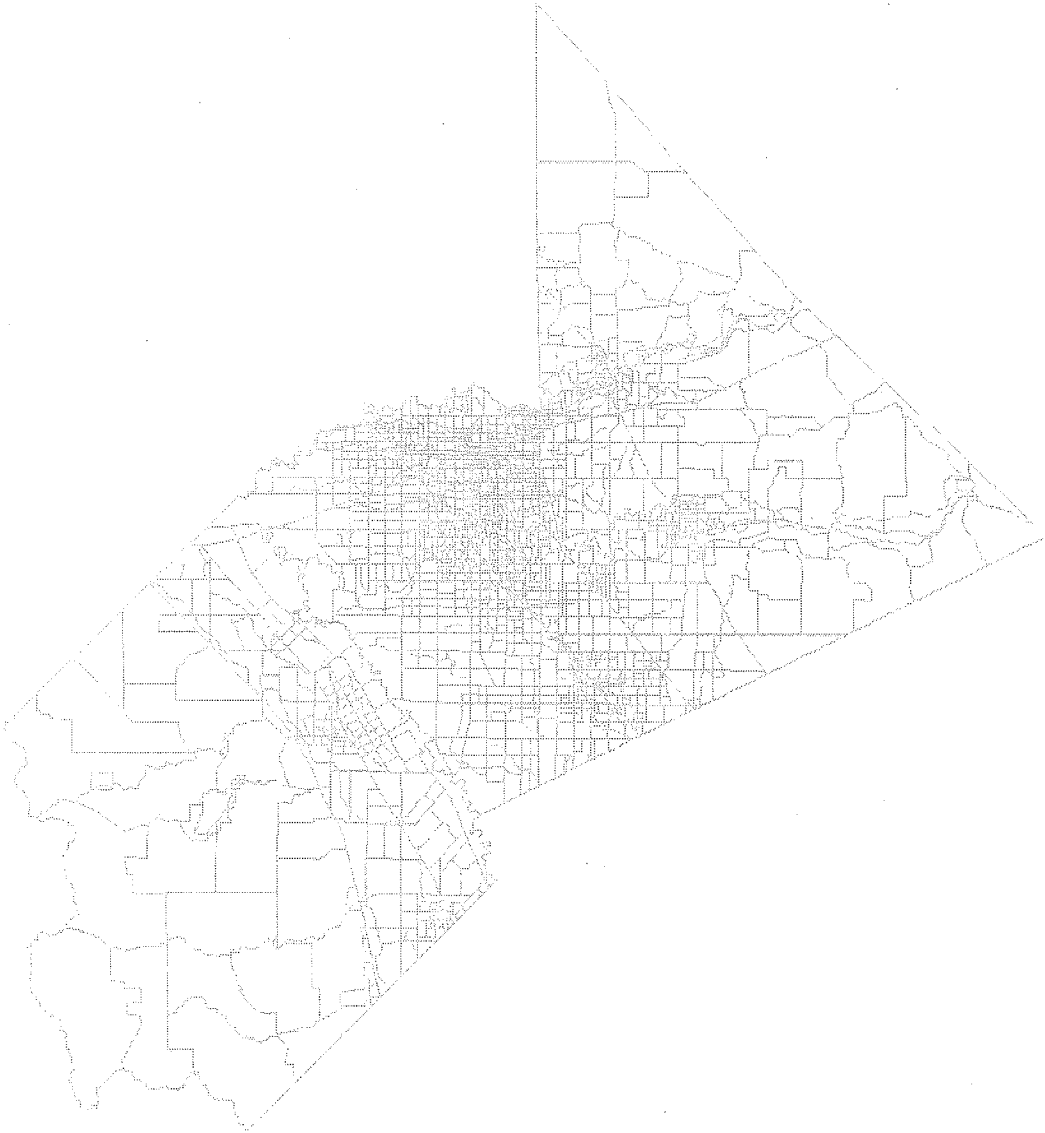
2.1 Internal Zones

Zone numbers 1 to 3200 are used for internal Stanislaus County zones. Not all zone numbers in this range have been used, allowing for future detailing or expansion of the model. The TAZs are generally smaller in size where land use density is higher, such as in the commercial area of Modesto, while larger zones are used for the more rural portions of the county.

The TAZ allocations are summarized in below.

Table 1 TAZ Numbering Ranges

Zone Range	Intended Coverage
1-50	Gateways
51-1200	Modesto and Vicinity (including Salida)
1201-1450	Ceres and Vicinity
1451-1600	Riverbank
1601-1800	Oakdale
1801-1900	Waterford
1901-2000	Hughson and Vicinity
2001-2300	Turlock Area
2301-2400	Patterson Area
2401-2500	Newman Area
2501-3200	Unincorporated Stanislaus County

Figure 3 TPPG Travel Demand Model TAZs and Gateways

2.2 External Zones

The TPPG model has 45 external cordons (gateways) for representing travel into, out of, and through the region. Appendix B lists the external zones, their locations and their assumptions.

3. USING TP+

The purpose of this documentation is to provide a user with the general procedures to apply the TPPG model. Users should refer to the TP+ and Viper documentation provided by Citilabs for specific TP+ and Viper related questions.

TP+ is a library of program modules that employs a control language that allows the user to write the script to provide instructions for performing all types of typical planning operations. At the heart of the TP+ system is the control language referred to as a scripting language. The script is stored in a file and then read when the system is executed. The individual modules are activated according to the instructions in the script. Each module is designed to perform certain operations, but only as specified by the user. A typical application could involve a very complicated set of instructions, or could be as simple as computing and/or printing a number from a file. It is the user's responsibility to design the process that is to be run.

The binary files generated by TP+ are designed to reduce disk storage requirements and reduce the amount of time spent on input/output. They have a proprietary format that can not be used by other software, but the user can translate them to other formats.

3.1 Required Resources:

TP+ requires a Windows 95/98/NT/2000/XP environment in which to function. The system utilizes RAM as needed; most applications will not require any special RAM considerations. The exact amount of RAM required can not be determined until an application actually runs and the combination of user options is diagnosed. It is fairly safe to state that if a computer can run Windows, it has enough RAM to run TP+.

About 2 MB of disk space is required to store the system. Additional disk space is required for the various files. A typical application will require zonal data files, networks, and matrices. Zonal data files are not very large, and network sizes will depend upon the number of alternatives and variables that the user wishes to employ. The largest networks will be only a few MB. The largest storage requirements will be associated with matrices. A matrix will contain zones*zones cells of information. Each cell value can be from 0 to 9 bytes in size, but TP+ uses a proprietary data compression technique that helps to reduce the sizes. The user can control the matrix sizing.

The minimum recommended hardware (for TP+ without Cube or Viper) is:

- Pentium class PC
- 512 MB of RAM
- 1 GB hard disk
- Generic Printer
- Any reasonable monitor
- Typical Windows printer drivers are required if TP+ is requested to do plotting

TP+ is designed to run in a multitasking environment. In such an environment, there is a possibility that several simultaneous applications could try to access the same data files simultaneously. This could possibly cause problems if one application is trying to update a file while other applications are accessing it. Different operating systems may handle this conflict differently. TP+ currently does nothing specifically to deal with this.

3.2 Directories

The TP+ and Viper software are typically installed in the C:\Program Files\Citilabs directory and subdirectories. These files do not need to be modified or accessed unless the user is updating the software from the web site or using a CD distributed by Citilabs.

As discussed above, each model alternative should be run and stored in a separate subdirectory. This includes all associated input and output files.

Geographic files that are common to all alternatives (such as the TIGER street map and the zone boundaries) may be stored in a single directory rather than copied to each alternative.

3.3 TPPG Model Files

The different types of data or instructions used by the traffic model are stored in various computer files. The following file types are used in the TPPG Countywide model:

- TP+ script files (ending with .S) for control instructions
- Land use and external trip files (ending with .DBF)
- Road network files (ending with .NET)
- Viper project settings files (ending with .PRJ)
- Turn penalty files (ending with .PEN)
- Matrix files (e.g., trip tables) created by TP+ (ending with .MAT)
- Report files created by TP+ (ending with .PRN)
- Miscellaneous text output files (ending with .VAR, or .TXT)

The following sections describe the input and output files. In this description, "y" characters are used as placeholders for numbers ("yy"). For example, "20yy_LU.dbf" means any file name that begins with 20, followed by two other numbers, and ends with "_LU.dbf" (such as, 2025_LU.dbf)

The input files for the full model run are listed in Table 2.

Table 2 - TPPG Model Input Files

File Name	Description	Created Using
20yy_Master.s	Main TP+ script file for analysis year 20YY	Viper
TripRates.txt	Cross classified HH and employee trip generation rates	MS Excel
MASTER.net	Input master road network	Viper
20yyPenalties.pen	Turn penalties for year 20YY	Viper
ff Stan.txt	Friction factors	MS Excel
KF HW 61.inp	Home based work K-factors (set to 1.0 by default)	MS Excel
KF NW 61.inp	Non work K-factors (set to 1.0 by default)	MS Excel
CAYy SUB XX.inp	Year 20yy Statewide Model Subarea external to external trips	MS Excel
CAYy XXAM.inp	Year 20yy AM peak hour external to external trips	MS Excel
CAYy XXPM.inp	Year 20yy AM peak hour external to external trips	MS Excel
XCLSPets.dbf	cross classification seed file	MS Excel
TPPG20yy LU.dbf	Land Use data file	MS Excel
TPPG 20yy SpecGen.dbf	Year 20yy special generators file	MS Excel
Gate 20yy Unbal.dbf	Unbalanced IX trip generation	MS Excel

Note, all files created with MS Excel are editable with a text editor.

3.4 Model Application

Model application (i.e., "running the model") refers to the calculations that convert the data inputs into results. In TP+, the program reads a set of instructions in a script file that tell the computer to use selected TP+ programs and operate on selected data files. The data files must already be edited and placed in the current subdirectory. In some cases, the script must also be edited so that it contains the correct instructions and titles.

3.4.1 Script Files

The standard script file, "20yy_Master.s ", has been arranged to make it easy to run a new alternative. The first part of the script lists the important input files. Use this as a checklist for preparing files. The analysis year can be changed by modifying one line of code.

Lines beginning with a semicolon (;) are comments that are ignored by the program and are added for clarity or documentation. The user can also add additional comment lines beginning with a semicolon (;).

3.4.2 Scenario Name

Each model alternative should have a unique scenario name (also known as "project prefix"). Similar to MINUTP (the software the MOGP model used previously), the scenario name is used to identify important input and output files. It is also recommended that the subdirectory name incorporate the scenario name. The TP+ software restricts the user to four characters. The default name is TPPG.

3.4.3 Running TP+

Once all the input files have been updated and included in the model alternative directory, the user is ready to start TP+.



If TP+ has been properly installed, there should be a TP+ icon on the desktop that can be used to launch TP+. Click on the TP+ icon and the TP+ control screen will appear. If there is no icon, TP+ can be started from the Start Menu like any other program in Windows. TP+ can also be started directly from within Viper. From the Viper menu, choose Run and then either File, Current File, Select Text, or Current Step, whichever is appropriate. If starting TP+ from Viper, be sure that any of the files that are to be used during the TP+ application are not left open in Viper while the TP+ application is executing.

Once TP+ has been activated, the TPPLUS window will open and prompt the user for the following items:

- The name of the script file that is to be run (if not shown the user can select the "Browse" button to select the correct script file in the correct subdirectory);
- The working directory where the basic application data is stored (this should default to the directory where the job script file resides when a new job script file is selected);
- A system prefix (make certain that the Project Prefix matches the scenario you have selected, such as "TPPG", and is a max of 4 characters - ALWAYS VERIFY THIS.);
- The desired height and width of a printed page (usually the default isn't modified); and
- An ID that will be printed at the top of every printed page (descriptive text for your alternative).
- Press "Start"

When this data is completed, the Start Button is pressed, and TP+ begins execution. As it is executing, periodic messages will be written to the message box. The program window can be minimized or left open as TP+ is executing. The ☒ button allows for pre-mature termination of the application. When the application is finished, the View Print File button can be pushed to view the printed results.

3.4.4 Errors

If there is an error, the TP+ control screen will display a message such as "Return Code 2." The only description of the error is contained in the .PRN file created by TP+.

Select "View Print File." Press the <F3> function key to move to the first error message.

4. MODIFYING THE ROADWAY NETWORK

The TPPG regional travel model uses coded representations of the region's existing and future roadway networks that can be edited for alternative year scenarios.

4.1 Road Network Elements

The road network is a computerized representation of the major street and highway system within the study area. The more important streets (freeways, expressways, arterials, and collectors) are fully included in the network. The model does not explicitly include all local streets. Some minor collector streets, local streets and driveways are instead represented by simplified network links ("zone centroid connectors") that represent local connections to the adjacent major roadway network.

The coded road network is comprised of three basic types of data: nodes, links and turn penalties.

4.1.1 Nodes

Nodes are established at each and every intersection between two or more links. Nodes are assigned numbers, with the first 3200 node numbers in the TPPG model representing traffic analysis zones (TAZ) as discussed above.

The road network nodes are coded with geographical "X" and "Y" coordinates to permit plotting and graphic displays. As part of the PROJECT, the roadway network was projected to State Plane 1983, California Zone 4 coordinates, with measurement in feet. Additionally, individual nodes were moved geographically to allow the model network to overlay in a consistent manner with other geographical information such as census maps.

Node data includes the node number, the X and Y coordinates, a City code filed, and separate numbering for TAZ and Gateway nodes (the same number as the node number).

4.1.2 Links

Links represent road segments, and are uniquely identified by the node numbers at each end of the segment (for example, a link may be identified as "1232-1234"). Information is coded for each road link.

4.2 "Master" Roadway Network

Dowling Associates has developed a "Master" network to store the network related attributes for the 2005 base and Modesto General Plan version of the network including number of lanes, facility type. Capacity-increasing roadway network improvements are in the Master network with construction year (project completion) identifiers. All

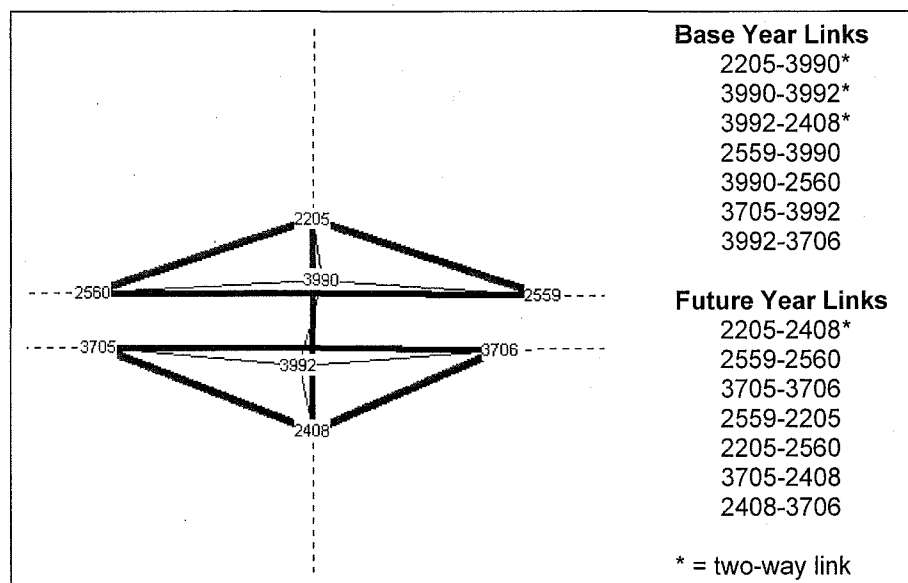
roadway networks used in the travel demand model are “built” from this Master network. The link attributes in the Master Network are similar to those in the

The purpose of creating a Master network was to make the task of network maintenance more efficient. In the past, if a roadway network improvement was to be included in several alternatives, the same network editing had to be performed individually for each of the network years. With a Master network, the user need only input the improvement in one place with the appropriate year of construction and then all desired network years can be built and will be consistent.

While the creation of a Master network will make the task of network maintenance more efficient, it will require the user to be very aware of how network coding is handled and to be diligent about displaying proper network data. Figure 4 shows an example of the Master network coding that illustrates the need for user diligence.

This figure shows a base year location with at-grade intersections that will become a grade-separated interchange in the future. The base year and future links are shown in different widths and two of the nodes (3990 and 3992 in this hypothetical example) are shown exaggeratedly offset for clarity. The dashed links are included in both the base year network and in the future network. The light weight solid links are included in the base year network but are excluded from the future network. The heavy weight links are included in the future network but are excluded from the base year network.

The display of these links in the master network can be confusing, because there are duplicate links for connecting the extremes of the interchange facility and the nodes are not normally offset as shown in Figure 4. One set of links is for the base year and one set is for the future year. When creating or editing such links care must be taken to add or change nodes and links so that the desired future network will be produced. The section titled *Building the Future Year Roadway Network*, below, describes how the link attributes are used to create the future network.

Figure 4 - Example of Master Network Coding

4.2.1 Editing the Master Roadway Network

If new or revised roadway facility projects are identified in the future that are not already included in the Master network, changes will need to be made to the Master network. Such changes might include adding links that are not already in the Master network, changing the number of lanes for links that are already present or deleting links that are already present.

To add a link: First copy a link that is similar to the one you want to add. Next, click and hold the left mouse button down when the cursor is on the A-node location then drag the mouse cursor to the B-node location and release the mouse button. If the selected location is within the search tolerance to an existing node, the end point of the new link will snap to this node; otherwise, the program prompts the user to add a new node and requests the new node number. A list of unused nodes will be displayed in the new node dialog box and the new number can then be selected from the list of unused nodes or entered manually. Then, enter or change the various link attributes to properly represent the link you are adding.

To widen a link: Click on the link to select it. The attributes for the link will be displayed in a dialog box. Change the LANES_IMP and IMP_MOGP attributes to properly represent the widening. If it is a two-way link, change the attributes for both travel directions (A-to-B and B-to-A).

To delete a link: Click on the link to select it, then press the **Delete** key.

4.2.2 Building the Future Year Roadway Network

As discussed above, links for all base year and future year improvements are included in the Master network. Future year roadway networks are created by including future links or changing the number of lanes and the speed and capacity classes on appropriate links. In some cases, it will be necessary to exclude base year links (e.g., if an at-grade intersection is being improved to a grade-separated crossing, the links that are attached to the node where the current at-grade condition exists must be excluded).

This process of including, changing, and/or excluding links is accomplished dynamically as the model is run. The information stored in each link's attributes is used to determine whether the link will be included, or changed, or excluded. The attributes that control this process are IMP_YEAR (the year when the improvement is to become effective), LANES05 (the base year number of lanes for the link), and LANES_MOGP (the improved number of lanes for the link). IT IS IMPERATIVE THAT FOR EACH RUN THE ANALYSIS YEAR IN THE SCRIPT BE PROPERLY SET.

The portion of script shown in Figure 5 uses these attributes to extract or build the correct roadway network for the defined alternative year. Figure 5 shows how these attributes are used to accomplish the three basic improvement actions (include, change, and exclude). If the analysis year in the script is later than the IMP_Year for the MOGP scenario, the number of lanes, speed and capacity class for the MOGP scenario will be included in the run.

Figure 5 - Job Script Code Lines to Build Future Year Network

```
;
;
;   USER MUST INPUT THE ANALYSIS YEAR!!!!!!!!!!!!!!!!!!!!!!
;
NetYear=2025           ; User MUST input study year for correct
network
;
;=====
=
;   NETWORK DEVELOPMENT
;=====
=
RUN PGM=HWYNET

.
.
.

IF (@NetYear@<IMP_MOGP)
  SPEED=SPEED_05
  CAPCLASS=CAPC_05
  LANES=LANES_05
ELSE
  SPEED=SPEED_mogp
  CAPCLASS=CAPC_mogp
  LANES=LANES_mogp
ENDIF

.
.
.

IF (LANES=0) DELETE      ; Delete link if it is only a future link

ENDRUN
;=====
=
```


Figure 6 - Creating Future Year Networks

Highway Links		
AX/BX	6429045	6430283
AY/BY	2089566	2089546
A	3660	3664
B	3664	3660
STREETNAME	Patterson	Patterson
DIRECTION	EB	WB
ADJAMCOUNT	532	825
AMCOUNT	541	838
AMPEAKDATE	2006	2006
ADJPMCOUNT	946	732
PMCOUNT	961	744
PMPEAKDATE	2006	2006
ADJDAYCOUN	13881	15177
DAILYCOUNT	13661	14937
DAILYDATE	2004	2004
JURISDICTI	0	0
DIST_GATE	0	0
SCREENLINE	9	9
SCREENLN2	0	0
CORDON	0	0
CORDON2	0	0
LANES_MOGP	2	2
CAPC_MOGP	12	12
SPEED_MOGP	50	50
IMP_MOGP	2018	2018
SPEED_05	45	45
CAPC_05	14	14
LANES_05	1	1
DISTANCE	0.2975	0.2975

4.2.3 Link Attributes

In the TPPG model, free-flow speeds are coded individually for each road link. As Figure 7 shows, capacities and speed-versus-congestion characteristics are assigned to groups of links based on the road type for the analysis year. The attribute CAPC_yy contains the capacity class of the link. Table 4 shows the capacity classes and the hourly capacity that is associated with each one.

Figure 7 - Viper Display of Link Data

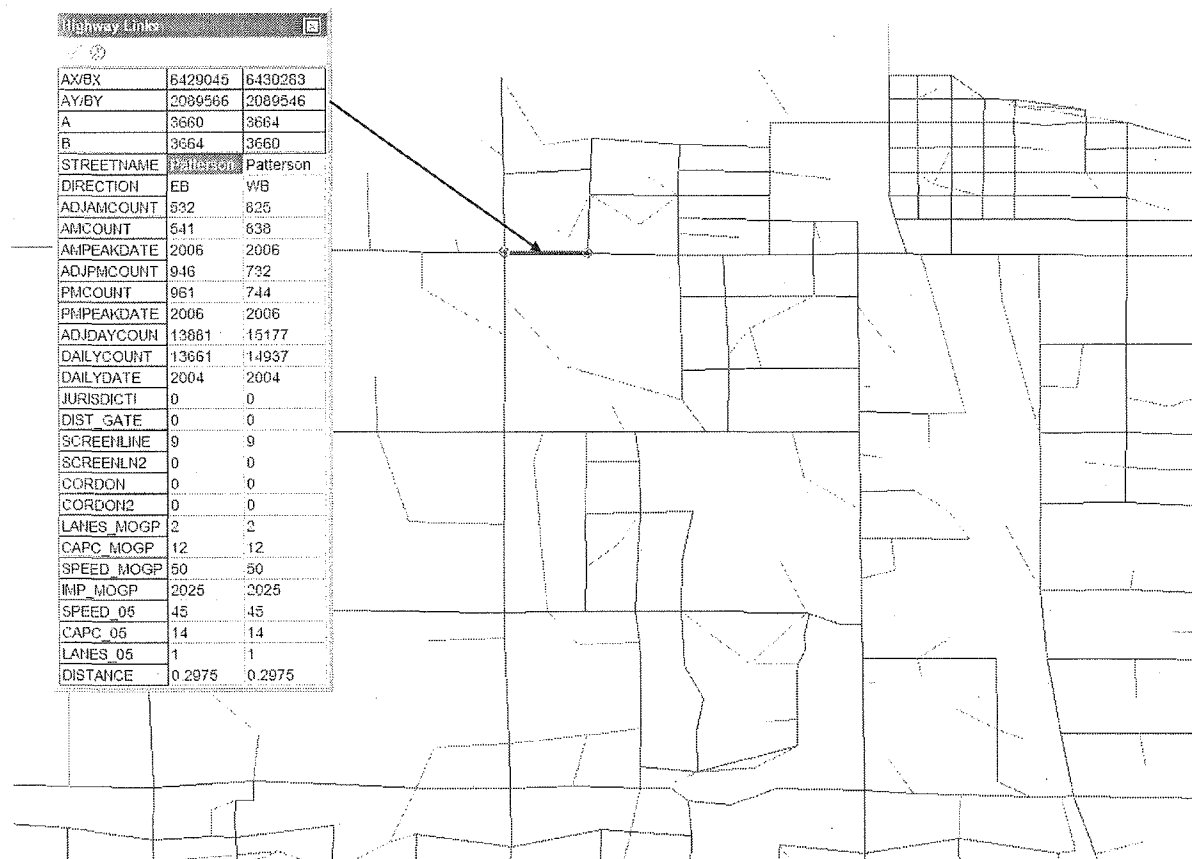


Table 3 - Capacities and Speed-Delay Curves by Roadway Type

ROAD TYPE	CAPACITY CLASS (CAPCLASS)	DESCRIPTION	HOURLY CAPACITY (VEHICLES PER LANE)
FREEWAY	1	Freeway	1800
2-LANE HIGHWAY	2	Two-lane Rural Principal Road	1000
MULTI-LANE HIGHWAY	2	Multi-lane Unsignalized or Rural Principal Road	900
	12	Multi-lane Rural Principal Road with center turn lane	900
ARTERIAL	2	Unsignalized Arterial	900
	3	Urban Signalized Arterial	750
	13	Urban Signalized Arterial with center turn lane	825
COLLECTOR	4	Urban Collector	650
	14	2-lane unsignalized road	925
2-LANE RURAL ROAD	5	Minor Rural Road	1000
MULTI LANE RURAL ROAD	5	Minor Rural Road	900
UNSIGNALIZED COLLECTOR	6	Unsignalized Urban Collector	
ZONE CONNECTOR	7	Gateway Connector	0
		Zone Connector	0
EXPRESSWAY	8	Class A Expressway	1500
	9	Class B Expressway	1250
	10	Class C Expressway	1000
SPECIAL LINK	11	Special Link (Needham Overpass, Pelandale Interchange)	1625
RAMP	19	Freeway Ramp	1000

4.2.4 Turn Penalties

Turn penalties are coded in a separate file, and can be used to identify node-to-node movements which are prohibited (such as certain left turns) or which have additional delays. In the TPPG model, turn penalties are primarily used to represent prohibited left turns to and from ramps at freeway interchanges.

Viper can be used to view and edit turn penalty files used in TP+ using the following steps:

- Use the Turns-Read Penalty File menu command to read a penalty file. If the specified file can not be found, the program will prompt the user to create a new file.
- Select a node from the network and press F2 (or select the Turns-Edit Penalty menu item) to display the penalty edit dialog box for that node.

The turn penalty edit dialog box is divided into three parts (see Figure 8). The top panel is the penalty function list. The left panel is the intersection geometric (the current movement highlighted.). And, the right panel is a grid with the penalty codes/values.

Figure 8 - Turn Penalty Dialog Box

Penalty Functions:

GoTo: 3671

Left Button: Select Inbound Leg
Right Button: Select Outbound Leg

From/To	1919	1926	3672	3892
1919	--		[-1]	
1926		--		

Penalty Sets: 1 2 3 4 5 6 7 8 All OK Cancel

The grid can be displayed in two styles:

- Matrix style - The rows are for inbound nodes and the columns are for outbound nodes (shown in Figure 8)
- Table style - Penalty records are listed in a table format with an extra field for comments.

The penalty values can be edited in both grid display styles and the intersection geometric panel displays the movement in the selected cell. The Grid/Table buttons on the toolbar is used to toggle between the two styles.

Notes on geometric display:

- A blue line denotes the inbound leg, and a red line with an arrow head denotes the outbound leg.
- The mouse can be used to select a particular movement on the intersection display, use the left mouse button to select the inbound leg, use the right button to select the outbound leg.
- The toolbar on top has buttons for saving the penalty file, go to the previous intersection, go to the next intersection, switch grid style, and go to a particular intersection.

4.3 Final Combined Loaded Network

After being run the TPPG model outputs a loaded network with slightly different attributes than the inputs stored in the master network. The final combined loaded network combines the results stored in the three networks that result from the assignment of daily, AM and PM traffic respectively. The combined loaded network is generated and named for the analysis year so references to the year are omitted in the link attribute fields. A subset of the link input variables and validation variables are included and the model volume estimates and VC ratios are appended to these. Table 4 lists loaded network attributes.

Table 4 - TPPG Loaded Network Link Attributes

NETWORK VARIABLE	DESCRIPTION
<i>Network Input Attributes</i>	
ID	Link ID code
A	A Node
B	B Node
DISTANCE	Length of Link in Miles
SPEED	Free Flow Speed
CAPCLASS	Capacity Class
LANES	Directional Lanes of Travel
TIME_FF	Free Flow Travel Time on Link
<i>Validation Attributes (Not provided uniformly)</i>	
STREETNAME	Street Name
DIRECTION	Cardinal Direction of Travel on link
DISTANCE	Distance (calculated from coordinates)
ADJAMCOUNT	Directional AM Validation Count adjusted to 2005
AMPEAKDATE	Date of Directional AM Validation Count
ADJPMCOUNT	Directional PM Validation Count adjusted to 2005
PMPEAKDATE	Date of Directional PM Validation Count
ADJDAYCOUNT	Directional Validation Count adjusted to 2005
DAILYDATE	Date of Directional Daily Validation Count
SCREENLINE	ID of Validation Primary Validation Screenline
SCREENLN2	ID of Secondary Validation Screenline
<i>Model Output Values</i>	
VOL_Daily	Directional Daily Model Volume Estimate
VOL_AM	Directional AM Model Volume Estimate
VOL_PM	Directional PM Model Volume Estimate
TOTVOL_DAILY	Bi-Directional Daily Model Volume Estimate
TOTVOL_AM	Bi-Directional AM Model Volume Estimate
TOTVOL_PM	Bi-Directional PM Model Volume Estimate
VCDAY	Directional Daily Model Volume to Capacity Ratio
AM_VC	Directional AM Model Volume to Capacity Ratio
PM_VC	Directional PM Model Volume to Capacity Ratio

4.4 Transit Network

The TPPG travel model does not include a separate transit network. Based on the Caltrans 2000 Travel Survey, transit trips (not including school buses) account for a negligible portion of trips in Stanislaus County. This proportion is not expected to increase significantly in the future with the current Regional Transportation Plan.

Future regional transportation studies may require more detailed analysis of transit infrastructure investments. If so, the TPPG travel model capabilities could be enhanced by adding separate representation of the transit systems and a mode choice

analysis step. The peak period model structure is compatible with transit and mode choice procedures used for other Central Valley travel models such as San Joaquin County and Fresno County.

5. LAND USE / EXTERNAL TRIP ASSUMPTIONS

Land use and socioeconomic data at the traffic analysis zone level are used for determining trip generation. The TPPG model maintains the previous zonal variables for the land use/socioeconomic database, including housing units by single-family and multiple-family use and auto occupancy, and employment by category (retail, service, education, government, and other). A TAZ map of the zonal structure is provided in GIS and *.pdf format with the default files.

Land use and socio-economic data, as well as information on special generators and external trips are all accessible and editable in Microsoft Excel. When so accessed the formats are intended to allow the user to easily modify land use assumptions and re-export these files out as .DBF files the required files needed to run the TPPG model.

5.1 Household Cross Classification Data

Auto ownership data and Household size data were obtained from the 2000 Census and a household cross classification scheme developed for household trip generation. The percentages of 0, 1, 2, 3, and for or more auto household were indexed against households of size 1, 2, 3, 4, 5 or more for both single family and multifamily dwellings. For each TAZ containing housing an estimate is therefore available for the proportion of households falling within any one of fifty categories each having its own set of trip generation rates. This data is contained in the file xClsPct.dbf. For housing in new zones this file is used to estimate cross classification proportions by applying a regression equation against other land use variables. The user has the option of editing the xClsPct.dbf file directly to input the proportions of households with different levels of auto ownership and different numbers of persons. The totals for auto ownership and household size must add up to 1 in both cases this is not recommended for any but the most advanced users.

The 2005 employment data in the updated model is primarily based on the land use database from the previous version of the model. The land use database in the previous version of the TPPG model was based on an extensive compilation of acreages by community plan land use category in each community. Occupied acreages were converted to building area and numbers of employees using standard density factors.

The most recent available information on the numbers of Stanislaus County employees in each employment category were obtained from the 2005 California State Profile (Woods and Poole Economics, Inc. 2006). Factors were applied so that the countywide totals of each employee type would match 2005 employment totals reported by Woods and Poole.

Dowling Associates

Transportation Engineering • Planning • Research • Education

shows the cross-classified household data for 2005 shows the same data for 2025.
shows the employment data for 2005 and the Modesto General Plan year.

Dowling Associates

Transportation Engineering • Planning • Research • Education

Table 5 2005 Countywide Cross Classified Summary

2005 Land Use			HH Size				
			1	2	3	4	5 or more
SF	Autos Owned	0	1,725	2,438	1,469	1,448	1,788
		1	6,666	10,395	6,185	6,037	6,866
		2	8,117	14,508	8,701	8,882	9,644
		3	2,869	5,274	3,258	3,265	3,630
		4 or more	1,069	2,008	1,227	1,244	1,426
SUBTOTAL		120,138					
MF	Autos Owned	0	1,034	1,191	704	641	744
		1	3,332	4,333	2,530	2,248	2,476
		2	3,070	4,621	2,702	2,456	2,674
		3	1,011	1,590	999	859	975
		4 or more	344	551	338	293	340
SUBTOTAL		42,056					
TOTAL		162,194					

Future year land use for the Modesto General Plan area were based on the 2003 General Plan MEIR land use assumptions with adjustments to the Village Residential land use to match updated City population projections. Land Use assumptions for the rest of the county were based on the 2005 update of the StanCOG model which incorporates countywide land use projections apportioned among the various jurisdictions by StanCOG staff.

Table 6 2025 Future Year Land Use Summaries

2025 Land Use			HH Size				
			1	2	3	4	5 or more
SF	Autos Owned	0	3,140	4,438	2,675	2,635	3,254
		1	12,135	18,923	11,260	10,990	12,500
		2	14,777	26,411	15,839	16,170	17,556
		3	5,223	9,600	5,931	5,943	6,609
		4 or more	1,947	3,656	2,234	2,264	2,596
SUBTOTAL		218,707					
MF	Autos Owned	0	2,250	2,592	1,531	1,394	1,619
		1	7,251	9,428	5,504	4,892	5,387
		2	6,681	10,055	5,880	5,343	5,819
		3	2,199	3,459	2,173	1,868	2,122
		4 or more	749	1,198	736	639	740
SUBTOTAL		91,509					
TOTAL		310,216					

Table 7 2005 and 2025 (General Plan Year) Employment Summary

EMPLOYMENT	2005	2025
Retail	16,300	104,862
Service	22,200	141,344
Education	10,000	27,778
Government	13,700	33,140
Other	49,700	224,081
TOTAL EMPLOYMENT	111,900	531,240

5.2 Modifying Land Use Assumptions

The land use data used by default in the model are contained in the TPPG2005_LU.dbf and TPPG2025_LU.dbf files (these are the base year land use and the 2025 horizon year land use inputs).

The base year land use data represents the latest land use inventory as of the date of this model update, and hence represents the year 2005 land use status. These data are consistent with the validation run, and the user is expected to maintain this consistency unless errors are found and need to be corrected.

Future horizon year (2025) land uses can be redistributed based on new input from local jurisdictions, or to reflect new project specific land use proposals. If alternative scenarios to the adopted buildout land use scenario are being tested, the adopted file should be backed up and maintained in a separate directory.

To make changes in the 2025 land use input data, modify the information for the appropriate TAZ in the 2025 land use find the TAZ in the left most column and make the appropriate changes in housing and/or employment levels to represent the total levels with the land use changes that are being made. The fields in the land use file are

TAZ = Traffic Analysis Zone Number
AREA = Land Area in Acres
POP = Population
SF = Single Family households
MF = Multi Family households
RET = Retail Employees
SER = Service Employees
EDU = Educational Employees
GOV = Government Employees
OTH = Other Category Employees

Dowling Associates

Transportation Engineering • Planning • Research • Education

Note that the **POP** column must be updated as the various household variables are changed. The default for population is 2.9 persons per SF or MF household. If the user desires to split a TAZ, then changes will have to be made to add one or more new TAZs to both the base year and the horizon year land use files. Appropriate data for the old TAZ and the new TAZ(s) will need to be entered on each worksheet. (This TAZ splitting procedure should only be undertaken by experienced users.)

Figure 9 - Portion of the 2025 (General Plan Year) Land Use Database

	A	B	C	D	E	F	G	H	I	J	K	L
1	TAZ	ACREAGE	POP	TOT HH	SF	MF	RET EMP	SER EMP	EDU EMP	GOV EMP	OTH EMP	TOT EMP
113	151	15	37	34	30	4	0	0	0	0	0	0
114	152	31	597	208	208	2	0	0	0	0	0	0
115	153	49	177	66	61	5	9	8	0	0	0	16
116	154	46	2126	733	425	308	37	10	300	0	5	352
117	155	139	548	189	110	79	0	64	0	0	0	64
118	156	29	0	0	0	0	7	140	52	0	51	250
119	157	142	272	81	77	4	4	34	23	0	31	92
120	158	125	239	71	67	4	3	30	20	0	27	81
121	159	11	0	0	0	0	78	323	0	33	0	434
122	160	35	2087	683	467	216	0	20	0	0	1	21
123	161	120	231	68	65	3	3	29	19	0	26	78
124	162	77	4	1	1	0	0	0	0	0	1743	1743
125	163	80	22	11	8	2	0	0	200	0	0	200
126	164	48	49	14	11	3	1	6	0	0	4	11
127	165	80	47	18	12	4	2	9	0	0	7	18
128	166	64	672	193	191	2	2	16	10	0	14	42
129	167	58	735	216	214	2	2	25	9	0	13	49
130	168	31	0	0	0	0	137	556	0	0	0	692
131	169	3	0	0	0	0	44	34	0	0	0	78
132	170	17	484	133	97	36	0	19	0	0	2	21
133	171	23	148	48	47	1	49	31	4	0	38	120
134	172	124	63	22	15	7	3	14	0	0	11	28
135	173	48	29	11	8	3	1	7	1	0	4	14
136	174	85	163	49	46	2	2	21	14	0	18	55
137	175	90	173	51	49	3	3	22	14	0	19	58
138	176	44	1375	474	94	380	0	0	0	0	0	0
139	177	23	412	142	142	0	0	0	0	0	0	0
140	178	22	789	272	128	144	0	0	0	0	0	0
141	179	23	0	0	0	0	0	0	0	0	2	2
142	180	12	230	79	59	20	20	0	0	0	0	20
143	181	71	78	26	16	10	4	318	2	0	0	323
144	182	32	366	92	38	54	113	242	0	0	0	355
145	183	11	0	0	0	0	251	117	3	0	37	408
146	184	16	162	56	39	17	2	0	53	0	0	55
147	185	36	374	128	93	35	7	24	0	0	2	33
148	186	14	0	0	0	0	217	100	16	0	15	347
149	187	10	191	35	24	11	0	0	34	0	0	34
150	188	23	32	11	11	0	600	3	0	0	15	619

5.3 Using Special Generators

The model is capable of incorporating “special generators” within Stanislaus County. These are included in the Spec Gen worksheet (trip generation for special generators). Special generators are used to include trips from land uses that are not well represented by the standard land use categories or trip rates. In the TPPG model, special generation is input directly as person trips by trip purpose this may require the analyst to estimate the distribution of trips by purpose and will require the analyst to apply vehicle occupancy factors to convert person trips to vehicle trips.

Often the estimation of trips by purpose is obviated by the fact that special generators are input as Home Based Other trips to reflect categories that are not reflected by other

purposes (such as recreational attractions). The distribution can also be estimated based on similar zones (by reference to the output file “TPPG_input_PA.dbf” generated by the model). Or can be calculated for trip attractors by multiplying the employment times the trip generation rates (see appendix). Once the distribution by trip purpose is determined vehicle trips are converted into person trips by using the vehicle occupancy factors embedded into the model and shown in the appendix.

New special generators should be appended to the file TPPG_20XX_SPECGEN.dbf. shows the special generator zones for the 2025 scenario.

Table 8 2025 Special Generators

Zone	Name
665	Costco's
770	Beckwidth Dakota CPD
721	
406	
772	
907	

5.4 External Trips

There are two types of trips at the cordons or “gateways” of the TPPG model, through trips (external-external or X-X) and external trips (external-internal, internal-external or I-X/X-I). Through trips are trips that pass through the model area without stopping. External trips have one end in Stanislaus County and one end outside Stanislaus County.

Daily 2005 vehicle through trips were estimated for Stanislaus County based on actual 2005 counts at the gateways and the proportion of trips considered to be through trips in the Caltrans statewide model. The Caltrans percentages were applied at each gateway.

Base year external trips to and from Stanislaus County (I-X and X-I) were estimated from 2005 traffic counts at the cordon points. These trips are split into the five trip purposes and further divided into gateway productions (trips produced outside Stanislaus County and attracted to Stanislaus County) and attractions (trips produced inside Stanislaus County and attracted to areas outside Stanislaus County). The external vehicle trips for each trip purpose are multiplied by the appropriate average auto occupancy rate to convert them to person trips.

Future total gateway volumes are factored from the 2005 base year gateway traffic counts using annual growth factors derived from traffic projections in adjacent counties as well as historical traffic growth rates. The through trip forecast volume for each pair of gateways is based on the average of the growth factors at each end of the trip.

It is not expected that the user should need to modify the external trip assumptions, which are included in the Gateway Inputs worksheet (gateways I-X/X-I input values) and the Gateway X-X worksheet (gateway X-X input values).

Using these assumptions, resultant external trips (XX, I-X and X-I) are calculated for the selected year. The I-X and X-I trips are exported with the land use assumptions in xxyyLU.DBF and the X-X trips are exported in a separate file called xxyyXX.DBF.

5.5 Creating New Scenarios

The model is set up to evaluate the base year and horizon year travel demand without significant changes to the files provided as defaults. If interim years are desired the analyst must provide some alternative inputs. This is recommended for advanced users only.

1) Set Analysis Year. One line of code in the model script must be modified. The analysis year entered at the top of the set up portion of the script as the variable 'NetYear,' must be set to the desired year.

2) Provide Interim/Outyear Land Use File. This can be based on wholesale inclusion of the General Plan build out assumptions for various areas of the model where development is expected to occur (for example for a specific plan or community plan area that is expected to develop in the interim). This requires specific planning guidance and should involve direction from the appropriate jurisdictions. An alternative approach is to perform a wholesale interpolation/extrapolation between the 2005 and the 2025 land use files provided for the default model. This is best accomplished in a spreadsheet where the POP, SF, MF, RET, SER, EDU, GOV, and OTH variables are calculated for the interim analysis year based on the formula:

$$Value_{[Analysis\ Year]} = Value_{2005} + [(Value_{2025} - Value_{2005}) * (AnalysisYear - 2005) / 20]$$

The resulting worksheet must be saved with the name in the format:

TPPG[*Analysis Year*].LU.dbf.

Where [*Analysis Year*] is substituted with the desired analysis year. This file must be in *.dbf format. 'TPPG' is the default prefix and may change accordingly. The special generators must be edited in Excel and the file renamed.

TPPG_[*Analysis Year*].SPECGEN.dbf.

3) Provide Turn Penalty File. Turn penalty files are only provided for the default base year and general plan year scenarios. The user has the option of selecting the general plan year file and renaming it according to the convention:

[Analysis Year]penalties.pen

This should be suitable for most applications except that the user should verify that there are no locations where interim year restrictions are eliminated in the general plan.

4) Verify Network Improvements. The user must review the Master Network and adjust improvement years for facilities that will be improved by the interim analysis year. The default improvement year is 2025. The analysis must coordinate with the lead agency to make these modifications. ALSO it may be necessary to add additional attributes to the Master network to reflect instances where links are improved but not to the full general plan level. This is done in viper under the menu item LINK=>Attribute=>Add. Three attributes should be added and named:

[Analysis Year]Speed

[Analysis Year]Lanes

[Analysis Year]CAPC

The analyst should typically set the values of these attributes to the MOGP values making using the menu commands LINK=>Compute, then modify the links with interim year differences manually. This process is recommended for very advanced users only and such changes should be reported back to the TPPG members.

6. MODE CHOICE CHANGES

Since the percent of transit trips is small in Stanislaus County, at this time the TPPG travel model does not include a separate mode choice analysis step. Transit trips currently account for less than one percent of all trips in Stanislaus County, and no major transit investments are planned which would significantly increase transit usage. The model does include factors for determining vehicle occupancy. These are shown in .

Table 9 - TPPG Vehicle Trips per Person Trip

Mode Split Factors	
Vehicles Trips per Person Trip	
Home Work	0.89860
Home School	0.35400
Home Shop	0.65930
Home Other	0.58980
Work Other	0.86060
Other-Other	0.60610

6.1 Transit Factors

The TPPG model contains a simplified mode split model so transit and other trip reduction scenarios can be estimated with the model. Using a simplified method eliminates the need to create and maintain a transit network along with fare and other cost information.

Basic mode split factors were developed from Caltrans' trip survey data. Additional factoring is applied for traffic zones that are planned as urban villages or to account for a higher expected level of transit usage. The Caltrans survey contains information on all trips made as well as the mode used for the trips, so person trip to vehicle trip conversion factors by purpose can be developed from the data.

The mode split process is divided into two parts:

1. The person trip tables by purpose are factored to vehicle trips using factors derived from the Caltrans' trip survey data. These factors take into account rural and urban transit usage as well as vehicle occupancy.

2. Transit assumptions are then applied to the resulting vehicle trip tables as further trip reductions. There are three transit scenarios, signifying the three levels of transit investments: low, medium, and high. No additional factoring will be done for the low transit scenario since a low level of transit usage is already assumed in step one, person to vehicle factoring. For the medium and high transit scenarios, additional reductions will be applied to the trip tables based on the level of local and regional transit service to each zone. contains the factors for transit usage.

Since existing transit usage is quite low, it is not possible to develop transit factors from existing conditions. The factors used are based on transit models in similar size counties and what reasonable reduction can be expected from transit service improvements.

Table 10 - TPPG Transit Service Factors

Local Service					
Transit Service Factor	None	Minimal	Low	Medium	High
None	1.000	1.000	1.000	1.000	1.000
Minimal	1.000	0.995	0.990	0.985	0.980
Low	1.000	0.990	0.985	0.980	0.975
Medium	1.000	0.985	0.980	0.975	0.970
High	1.000	0.980	0.975	0.970	0.965
Regional Service					
Transit Service Factor	None	Low		Medium	High
None	1.000	1.000		1.000	1.000
Low	1.000	0.990		0.985	0.980
Medium	1.000	0.985		0.960	0.950
High	1.000	0.980		0.950	0.940

The data file TRANSIT20yy.INP contains the coding for transit levels of service and city code each traffic zone. Transit service is divided into local and regional service, where local service is only available between traffic zones with the same city code, and regional service is only available between traffic zones with differing city codes. The service ratings are based on the traffic zones' distance from transit lines as well as the headways of the accessible transit service.

Local service has 5 levels:

- None (0)
- Minimal (1)
- Low (2)
- Medium (3)
- High (4)

Regional service has 4 levels:

- None (0)
- Low (1)
- Medium (2)
- High (3)

Both the medium and high transit scenarios are contained in the TRANSIT20yy.INP file. The TP+ script file will utilize one of the scenarios based on the column specification in the ZDAT record.

7. SPECIAL ASSIGNMENTS

In an effort to meet the needs of the TPPG, several special assignment options are explained here, including the saving of selected intersection turn volumes, select link and select zone assignments.

7.1 Intersection Turn Volumes

The TP+ command **TURN**S is used to request that the volumes at specific nodes are to be accumulated. If there is at least one **TURN**S statement, the module will accumulate turns for every assignment loading. At the end of each iteration (in the Phase=Adjust), a single total turn volume will be computed for each movement at the nodes where turns are requested. By default, the single volume is computed by adding all the individual turn volume sets together ($T = \text{TURN}[1] + \text{TURN}[2] + \text{TURN}[\dots]$).

If turn volumes are to be accumulated and reported, it is necessary to specify the selected nodes with an **N=** , , , etc statement, and also to have a **FILEO TURNVOLO** specified to define the file(s) to which the turn volumes will be written. **N |IP|** is a list of nodes at which turning volumes are to be accumulated.

A sample job script to save turn volumes is shown in . This job script loads the morning 3-hour peak period traffic onto the network saving turns at the nodes specified by:

```
TurnList=1521-1523,1525.
```

A binary file (.BIN) and a database file (.DBF) are created with the turning volume output by:

```
TURNVOLO=LDA3_SelLink.TRN, FORMAT=BIN
```

```
TURNVOLO=LDA3_SelLink.DBF, FORMAT=DBF
```

7.2 Select Link Analysis

also shows the commands to track the traffic using a selected link or set of links. The chosen links are specified by:

```
SelLinkList='1519-1520*,1521-1565*'
```

The volumes using the selected links are saved in the output file as a separate link attribute that is created by:

```
PATH=TIME, PENI=1, VOL[1]=MI.1.1,  
MW[2]=MI.1.1, SELECTLINK=(L=@SelLinkList@),  
VOL[2]=mw[2]
```


Dowling Associates

Transportation Engineering • Planning • Research • Education

Figure 10 - Sample Jobstream for Turning Volumes & Select Link Analysis

```

/ *****
/ PM PEAK WITH SELECT LINK Analysis
/ *****
/
/ USER MUST INPUT THE ANALYSIS YEAR!!!!!!!!!!!!!!!!!!!!!!
/
NetYear=2025          ; User MUST input study year for correct network
NumIterEQ=30         ; Equilibrium assignment iterations (30)
SellLinkList='1519-1520*,1521-1565*' ; Must be in 'single quotes'
TurnList=1521-1523,1525
/
/      Examples of Select Links
/
/   SELECTLINK=(L=1519-1520) link 1519-1520 in A-B dir
/   SELECTLINK=(L=1521-1565*) link 1519-1520 in A-B or E-A dir
/ *****
/ PM TRAFFIC ASSIGNMENT
/ *****
RUN PGM=HWYLOAD
/ *****
/ Load Network with Full Trip Table
/ *****
NETI=?_@NetYear@_BASE.NET
MATI=?_PM1_OD.MAT
NETO=?_@NetYear@_PM1HR.NET

TURNVOLO=PM_SelZone.TRN, FORMAT=BIN
TURNVOLO=PM_SelZone.DBF, FORMAT=DBF
TURNS N=@TurnList@

CAPFAC= 0.1          ; Equi CN

MAXITERS= @NumIterEQ@
TURNPENI=@NetYear@Penalties.pen ; Set turning penalties & prohibitors
FUNCTION V=VOL[1]
PHASE=LINKREAD
LINKCLASS=LI.CAPCLASS
CAPACITY=LI.CAPACITY
T0=LI.TIME_FF
ENDPHASE

Phase=Iloop
  Path=time,vol[1]=MI.1.1,Peni,VOL[1]=MI.1.1,
  MW[2]=MI.1.1, SELECTLINK=(L=@SellLinkList@),
  VOL[2]=mw[2] ; using SellLinkList
endphase

PHASE=ADJUST
TC[02]=T0*(1 +0.15*(VC/0.75)^4)+ (0.15*(VC/0.95)^12) ; Highway/Unsig. Art.
TC[04]=T0*(1 + 0.15*(VC/0.9)^6) ; Collector
TC[05]=T0*(1 + 0.25*(VC/0.6)^4) ; Rural Collector
TC[06]=T0*(1 + 0.1*(VC / 0.85)^4) ; Unsig. Collector
TC[07]=min((T0*30.0),(T0*(1 + 0.15*(VC / 0.25)^4))); Centroid Connector
ENDPHASE
endRun
```


7.3 Select Zone Analysis

shows the commands to track the traffic to and from selected zones, which is a technique that can be used to estimate project trip distribution for traffic impact studies. This jobstream actually tracks traffic to and from selected zones that uses selected links and keeps track of the turning movement volumes at selected nodes. The chosen nodes and links are specified as described in the previous section. The chosen zones are specified by:

```
SelZoneList=185-187,191
```

The volumes to and from the selected zones that use the selected links are saved in the output file as a separate link attribute that is created by:

```
PATH=TIME,PENI=1,VOL[1]=MI.1.1, MW[2]=MI.1.1,  
  SELECTLINK=(A=@SelZoneList@ | B=@SelZoneList@),  
  VOL[2]=mw[2]
```

Dowling Associates

Transportation Engineering • Planning • Research • Education

Figure 11 - Sample Jobstream for Select Zone Analysis

```

/ *** JOB ***
/ PM PEAK WITH SELECT ZONE Analysis
/
/
/ USER MUST INPUT THE ANALYSIS YEAR!!!!!!!!!!!!!!!!!!!!!!
/
NetYear=2025          ; User MUST input study year for correct network
NumIterEQ=30         ; Equilibrium assignment iterations (30)
SelZoneList=200-300  ; SELECTLINK=(A=@SelZoneList@ | B=@SelZoneList@)
                      ; to OR from SelZoneList
TurnList=1521-1523,1525
/
/ PM TRAFFIC ASSIGNMENT
/
RUN PGM=HWYLOAD
/ -----
/ Load Network with Full Trip Table
/
NETI=?_@NetYear@_BASE.NET
MATI=?_PM1_OD.MAT
NETO=?_@NetYear@_PM1HR.NET
;
TURNVOLO=PM_SelZone.TRN, FORMAT=BIN
TURNVOLO=PM_SelZone.DBF, FORMAT=DBC
TURNS N=@TurnList@
;
CAPFAC= 0.1          ; Equi CW
;
MAXITERS= @NumIterEQ@
TURNPENI=@NetYear@Penalties.pen ; Set turning penalties & prohibitors
FUNCTION V=VOL[1]
PHASE=LINKREAD
LINKCLASS=LI.CAPCLASS
CAPACITY=LI.CAPACITY
T0=LI.TIME_FF
ENDPHASE

Phase=Iloop
  Path=time,vol[1]=MI.1.1,Peni=1,VOL[1]=MI.1.1,
  MW[2]=MI.1.1, SELECTLINK=(A=@SelZoneList@ | B=@SelZoneList@),
  VOL[2]=mw[2]          ; to or from SelZoneList
endphase

PHASE=ADJUST
TC[02]=T0*(1 + 0.15*(VC/0.75)^4) + (0.15*(VC/0.95)^12); Highway/Unsig. Art.
TC[04]=T0*(1 + 0.15*(VC/0.9)^6) ; Collector
TC[05]=T0*(1 + 0.25*(VC/0.6)^4) ; Rural Collector
TC[06]=T0*(1 + 0.1*(VC / 0.85)^4) ; Unsig. Collector
TC[07]=min((T0*30.0),(T0*(1 + 0.15*(VC / 0.25)^4))); Centroid Connector
ENDPHASE
endRun
```


8. ADJUSTMENT OF RESULTS

The traffic validation indicates that the TPPG model provides a good overall estimation of travel demand patterns in Stanislaus County. However, it is recommended that traffic forecasts on specific road segments use an adjustment process that accounts for validation errors. Where base year traffic counts are available, forecast traffic volumes are calculated based on the increment between the base year and future year model results:

$$\text{Adj. Forecast Volume} = \text{Base Year Count} + (\text{Model Forecast Volume} - \text{Base Year Model Volume})$$

An incremental adjustment is generally recommended instead of an adjustment based on ratios. A ratio adjustment factor does not guarantee continuity of traffic volumes between adjacent road segments, and can result in very large adjustments on low-volume links.

8.1 Turn Movements

The TPPG model has been validated to replicate overall existing traffic volumes in Stanislaus County. The model accurately represents overall traffic volumes on roads grouped by classification or across regional screenlines. In many locations, the model also accurately estimates traffic on specific road segments. It is likely that the model will not be accurate enough in every location to reliably calculate level of service directly from model output. However, a validated model will generate good estimates of changes in traffic volume in response to changes in land use or road network assumptions. Therefore, it is recommended that adjustments be applied to model results prior to traffic operations analysis.

The primary reference for traffic model volume adjustments is *National Cooperative Highway Research Program Report (NCHRP) 255: Highway Traffic Data for Urbanized Area Project Planning and Design, 1982* (now out of print). Some of the simplified procedures described in NCHRP 255 can be improved using current computer programs.

8.1.1 Link Volumes

There are two common procedures for adjusting link volumes from a model:

1. Increments (adjust traffic counts by increment from base year model to future year model)
2. Growth Factors (adjust traffic counts by ratio of future year model to base year model)

It is recommended that link volumes from the TPPG model be adjusted based on the increment method, for any link where traffic counts are available. Factors may be applied in locations where forecasts are needed and traffic counts are not available.

Discussion of Factor Method

The growth factor or ratio method calculates the ratio of future model forecast volumes to base year model volumes and applies the ratio to the base year traffic count. For example, a segment of a given street may have a 2005 traffic count of 24,000 daily vehicles. The validated 1998 base year model may estimate a 2005 volume of 19,500 (19% low) and a 2020 volume of 23,800 (lower than the 2005 count). The growth factor method would calculate an overall factor of $23,800/19,500 = 1.22$. Applying the factor of 1.22 to the count of 24,000 would result in an adjusted forecast of 29,280.

The factor method can generate very odd results when either the traffic count or base year model volume is very low. The factor method also does not guarantee continuity of flow from one link to the next. Therefore, the increment method is recommended.

Procedure for Links with Traffic Counts

The following procedure is recommended for adjustment of all forecast volumes on all road types, including freeways, local streets, and intersection approach and departure volumes. A spreadsheet is useful for organizing the adjustments.

1. **Balance Counts.** Balance existing traffic counts between adjacent road segments or adjacent intersections where appropriate. The exiting volume from one intersection should equal the entering traffic at the next intersection if there are no streets or driveways between the intersections.
2. **Compile Base Year Model Volumes.** Enter the appropriate daily, A.M. peak hour or P.M. peak hour traffic volumes from the version of the TPPG model that is closest to the traffic count year. If a version of the model is not available within two years of the traffic count year, it is recommended to interpolate between two model years to estimate the appropriate base year. For example, 2005 model volumes could be estimated for comparison with 2002 traffic counts by interpolating the increment between 2002 and 2005 model volumes.
3. **Compile Future Year Model Volumes.** Enter the appropriate daily, A.M. peak hour or P.M. peak hour traffic volumes from the version of the TPPG model that is closest to the future study year.
4. **Calculate Increment from Base Year Model to Future Year Model.** Subtract the base year model volume on each link from the future year model volume.
5. **Check Negative Increments.** In some cases, the model volumes will decrease between the base year and the future year. Decreases in traffic could be due to legitimate reasons, such as construction of a new facility that diverts traffic off of the road. There could also be legitimate but difficult-to-explain reasons, such as future traffic avoiding a road where the model is predicting significant future congestion. Or, decreases could be due to errors or discrepancies between the base year and future year land use assumptions. The analyst must determine whether to allow traffic to decrease consistent with the model assumptions, or to reset the negative increments to zero so that no future forecasts are lower than the base year traffic counts.

6. Add Increment to Traffic Count. Add the growth increment to the base year traffic count to calculate the final adjusted forecast volume.

Procedure for Links without Traffic Counts

For road segments that exist in the base year but do not have traffic counts, a factor method is recommended for adjusting future model volume forecasts.

1. Adjust Links with Traffic Counts. Calculate adjusted forecast volumes for links with traffic counts following the above procedure in Section 2.2.
2. Select Representative Links. Select one or more similar nearby links with adjusted forecasts. For example, adjacent freeway links should be used for adjustments on freeways. Ramps that serve the same general movements (such as "northbound off-ramp from downtown") should be used to adjust ramp volumes. Parallel arterials should be used to adjust arterial segments. Calculate the adjustment factor on those nearby links as the adjusted traffic volume divided by the unadjusted future year model volume.
3. Apply Adjustment Factor. Apply the average adjustment growth factor to the unadjusted future year model volume on the link without traffic counts.

For future roads that do not exist in the base year, it would generally be appropriate to use unadjusted model traffic volume forecasts.

8.1.2 Intersection Turn Volumes

It is possible to create a travel model that estimates accurate link volumes on a majority of important road segments. However, it is very difficult to accurately estimate individual turn movements. This is primarily due to the aggregation of land uses into transportation analysis zones (TAZs), which means that the model cannot represent all of the individual paths that drivers use to reach individual parcels and driveways. Therefore an adjustment process is recommended.

Procedure for Turn Movements

The procedure for intersection turn volumes is a two-step process. First, the link volumes entering and exiting the intersection are adjusted as described above. Second, existing turn movement counts are factored to match the adjusted entering and exiting volumes.

1. Adjust Link Volumes. Adjust the peak hour link volumes in and out of each leg of the intersection (generally eight segments for a standard four-way intersection) using the incremental adjustment process described in Section 2.2.
2. Factor Turn Volumes. Factor the base year turn movement count at the intersection until the total volumes in and out of each leg closely match the adjusted link volumes. A common factoring algorithm is named after its creator, Furness. Computer applications of the Furness procedure are available ("Turns32" on the Dowling Associates website, www.dowlinginc.com, or the "LOS" program from TJKM Transportation Consultants, "Estimate Turns from

In/Out Volume" option) or simplified versions can be programmed in spreadsheets.

3. Check Increments. Some of the factored turn movements may end up lower than the base year traffic counts, due to large increases on certain exiting movements that divert traffic away from other movements. The analyst must decide if the forecast turn movements can decrease from the base year traffic counts, or if the forecast turn movements should be reset to be no lower than the base year traffic counts.

Procedure for Movements without Traffic Counts

If a new road segment is added in the future, there will be no traffic counts available for adjustment. The following procedure is recommended

1. Model Traffic Assignment. Assign future peak hour traffic using the TP+ model and save turn movements at the selected intersections.
2. Intersection with Existing Road. If the new road will intersect an existing road, estimate base year traffic counts and adjusted forecast link volumes on as many movements as possible on the existing road at the new intersection based on traffic counts at adjacent locations.
3. Substitute Model Volumes for Count. Substitute model-estimated turn movement volumes as base year traffic counts for all turn movements to and from the new road.
4. Factor Turn Movements. Continue with the procedure described in Section 3.1.

Shortcut Procedure

The factoring procedure described in Section 3.1 will give the most representative results for intersection turn movement forecasts based on growth on individual legs. However, there may be times when the analyst may not have ready access to the adjustment software and needs a quick assessment of intersection conditions. The following procedure is recommended for "shortcut" analysis only:

1. Calculate Factors. Calculate the growth factors on each leg of the intersection as the adjusted future year model volume (or unadjusted future year model volumes if adjustments are not available) divided by the base year model volume (or base year traffic count if the base year model is not available). The factor can be calculated based on total two-way or directional one-way daily or peak hour model volumes.
2. Apply Factors. Apply the growth factor on each leg to the turn movement counts entering from that leg;

OR

Calculate the growth factor for each turn movement as the average of the two growth factors on the entering and exiting leg.

3. Check Results.

9. REPORTING THE RESULTS

There are a variety of ways to report the results of the TP+ traffic assignment, including screen graphics, plots and printed reports.

9.1 Viewing and Plotting Model Data

9.1.1 Network Project Files

Network project files are used by Viper to store various settings from the network window, including:


- The status and drawing order of the display layers
- For each display layer
 - File name
 - Coordinate offset
 - Coordinate scale
 - Color specifications
 - Selection criteria
- Saved views
- Saved polygons
- Page setup information
- Highway network attribute calculation information
- Left-hand drive display option

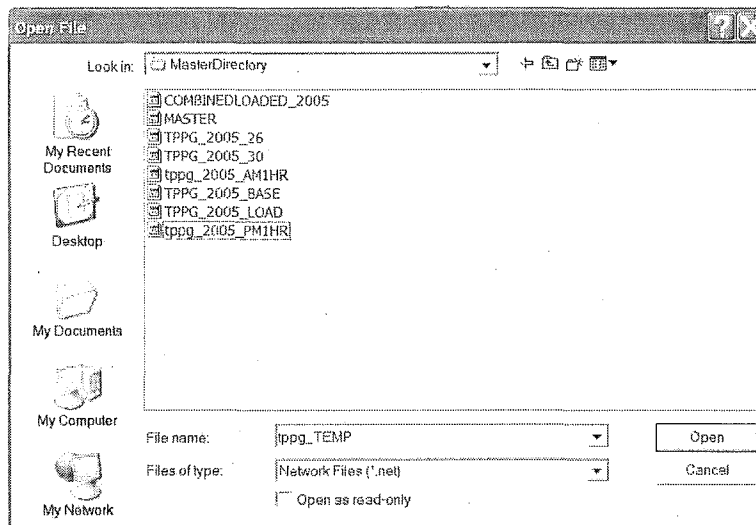
The project file is an ASCII formatted file which looks like a Windows INI (Initialization) file. This file should not be modified directly. Citilabs recommends that this file only be modified by changing the settings in Viper. The default name for the project file is the same name as the highway network file with a PRJ file extension.

Viper will automatically search for a project file when a highway network file is opened. If a project file with the same name is found, the program will utilize the settings found in the project file. If such a file is not found, then Viper will try to search for a file named DEFAULT.PRJ in the current (project) directory and then in the Viper program directory. If a DEFAULT.PRJ file is located, Viper will utilize the settings in this file.

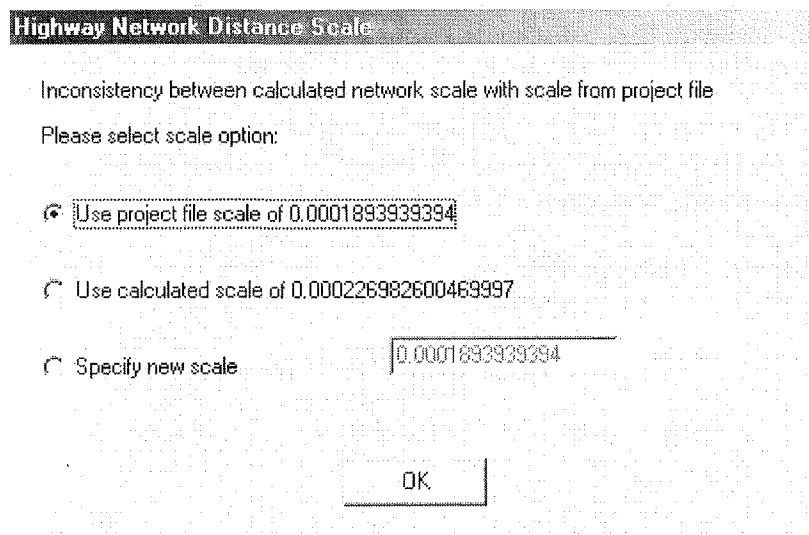
Viper “project files” (.PRJ) have been developed to allow TPPG to view and plot model link data included in each scenario’s loaded network. The project file can be opened with the Open File dialog and the saved settings restored in a new highway window.

9.1.2 Opening Networks

1. Start Viper by either “double clicking” on its icon  on your desktop OR by selecting Viper from the START bar under PROGRAMS.
2. In Viper, select File Open.
3. Use the “Look in:” pull down to select the correct directory
4. Type in “*.net” in the “File name” box as shown in the figure below.

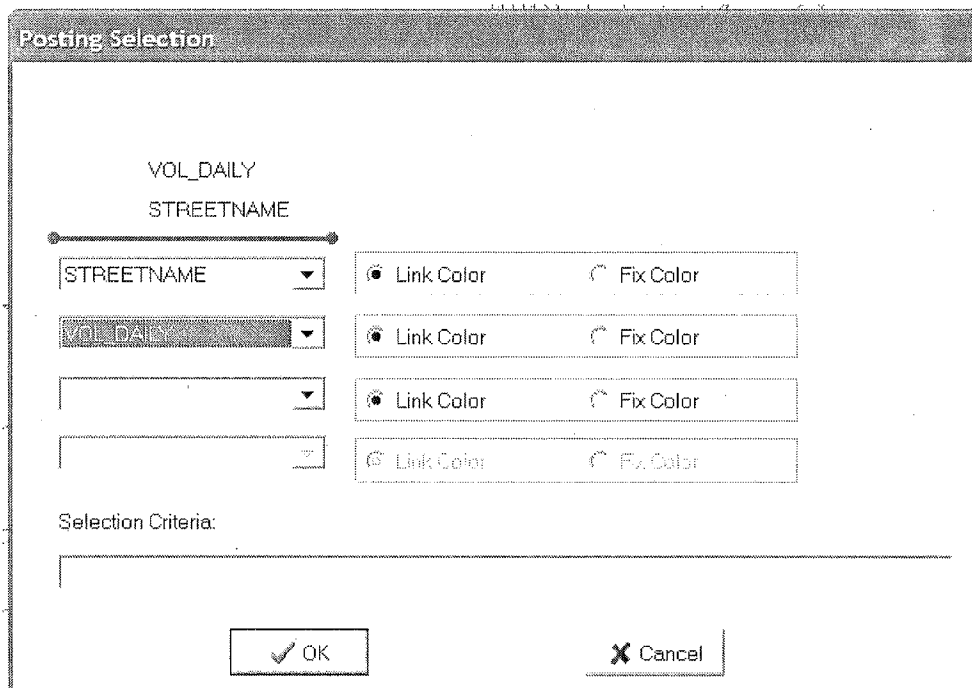



5. Select the network you want to open.
6. You may be asked to set the scale for a network. Enter “OK” to use the project scale on the Highway Network Distance Scale dialog box as shown below. This scale (0.000189...) represents a foot-to-mile scale (1/5280).



9.2 Posting Volumes on Loaded Networks

1. Once you have your loaded network open, select Post... All Links... to get the Posting Selection dialog box shown below. Select daily volumes and street names with colors as shown below. (Note: You could also post other variables like AM or PM values.) The color usually defaults to Link Color. Usually select Fix Color to black.



2. To change the font size, select the font icon  from the command bar.
3. Select File... Printer Setup... to get your printer options. I usually select Portrait for the full TPPG model area and Landscape for zoomed in views. Note: These do not be save in the Viper project files and must be reset when reopening a network.
4. Select View... Resize to Plot Page... to set your view window so WYSIWYG (what you see is what you get...).
5. Select View... Restore... to zoom in to any of the predefined window areas.
6. Select File... Print... to print to your defined printer or plotter.

10. THE FORECASTING PROCESS - TRIP GENERATION

The trip generation step quantifies the total magnitude of travel (person trips) generated in each zone based upon land uses within the zone.

10.1 Trip Stratification

Trips are stratified by five trip purposes. The trip ends generated within any area are further classified as either trip end productions or trip end attractions. The five trip purposes are estimated separately and then later combined prior to assignment to the networks.

10.1.1 Trip Purposes

To derive more accurate projections of future travel behavior, the TPPG model stratifies trip ends by five trip purposes:

1. **Home-Work** trips are commute trips between residences and places of employment, including both trips from home to work and from work to home.
2. **Home-School** trips are between residences and educational institutions.
3. **Home-Shop** trips are trips between residences and places of retail employment.
4. **Home-Other** trips account for all other trips which begin or end at home, and include school trips, social trips and recreational trips.
5. **Other-Work** trips are trips between places of employment and places other than home, such as driving to a restaurant during a lunch break, driving a delivery truck away from the main office, or stopping at the gas station on the way home from work.
6. **Other-Other** trips account for all other “non home based” trips, such as trips between two other stores or long-distance truck trips.

Splitting the trips into purposes allows for a better understanding of the relationship between jobs and housing, by separating commute trips. It also provides more control over the trip distribution, since different types of trips involve different trip lengths. For a peak period model, it is important to identify the differences in travel characteristics over the day.

10.1.2 Productions and Attractions

Consistent with conventional modeling practice, each one-way trip is defined as having two trip ends in the trip generation process:

- **Trip Production.** This is defined as the home end of any home-based trip, regardless of whether the trip is directed to or from home. If neither end of the trip is a home (i.e., non-home based), it is defined as the origin end.

- **Trip Attraction.** This is the non-home end (e.g., place of work, school or shopping) of a home-based trip. If neither end of the trip is a home (i.e., it is a non-home based trip), the trip attraction is defined as the destination end.

In other words, trip productions are generally *home* related while trip attractions are generally related to place of *work*. For example, a typical commute from home to work in the morning and then back home in the evening represents two separate one-way trips, and there are two trip ends *produced* in the home zone and two trip ends *attracted* in the work zone.

10.2 Trip Generation Rates (Person Trips)

Trip generation rates (person trips) for the TPPG peak period model were derived from the 2001 Caltrans Statewide Travel Survey (the most recent available at the time of this writing), supplemented by information from previously developed models and knowledge about the accuracy of travel surveys. Separate trip generation rates were derived for each land use cross classification and employment category and for each trip purpose.

10.2.1 Household Trip Productions

A standard procedure for “cross-classification” trip generation would be to determine the average trip rate for each of the six household categories. With a small survey sample size, this procedure can result in zero or inconsistent rates for certain household categories. The TPPG model uses a “proportional smoothing” technique to determine the household rates. The proportional smoothing technique calculates the average ratio of rates for single family versus multiple family households, and the average ratios of rates for household size and auto ownership categories. The ratios are then combined to determine the rates for each of the six individual categories. These rates are substituted for zero values obtained from the survey. and show the cross-classified household trip generation rates for single family and multi family households respectively.

10.2.2 Work-Other Trip Productions

The Caltrans Statewide Travel Survey can also provide some information on trips made by surveyed workers. For each surveyed person, the work trip characteristics can be correlated to their reported type of employment. These survey records were used to determine Work-Other productions for each of the five types of employment in the TPPG model. shows the trip generation rates for employment categories.

Table 11 Cross Classified Single Family Trip Generation Rates

Land Use Category					Household Size				
					1	2	3	4	5 +
Single Family	Production	H-W	Auto Ownership	0	0.064	0.171	0.247	0.269	2.797
				1	0.841	1.179	1.861	1.436	1.946
				2	0.737	2.220	2.248	2.709	2.670
				3	1.193	2.245	3.523	3.810	3.660
				4+	0.655	2.400	4.383	4.575	5.236
		H-SC		0	0.038	0.018	3.557	0.723	1.221
				1	0.215	0.102	1.663	4.094	8.625
				2	0.223	0.106	0.849	3.424	5.257
				3	0.061	0.029	0.698	4.080	6.612
				4+	0.198	0.094	0.833	3.014	4.539
		H-S		0	0.407	0.283	0.296	0.372	0.380
				1	1.238	1.404	2.369	0.415	4.381
				2	1.108	1.943	2.182	2.452	1.489
				3	1.649	1.573	1.333	2.254	2.255
				4+	2.182	1.426	2.008	2.503	3.524
		H-O		0	0.750	0.128	0.207	0.308	0.451
				1	1.244	2.206	7.017	11.055	10.826
				2	2.048	2.988	4.705	6.883	11.736
				3	2.863	2.712	3.983	5.779	8.228
				4+	0.443	3.634	3.655	5.979	6.944
		O-O		0	0.005	0.002	0.002	0.002	0.002
				1	0.633	0.337	1.190	0.105	0.595
				2	1.314	1.554	1.127	1.221	1.364
				3	1.209	0.964	0.915	1.436	0.935
				4+	0.819	0.766	1.605	0.852	1.962
	Attraction	W-O	0	0.081	0.014	0.022	0.033	0.049	
			1	0.135	0.240	0.763	1.202	1.177	
			2	0.223	0.325	0.511	0.748	1.276	
			3	0.311	0.295	0.433	0.628	0.894	
			4+	0.048	0.395	0.397	0.650	0.755	
		O-O	0	0.005	0.002	0.002	0.002	0.002	
			1	0.633	0.337	1.190	0.105	0.595	
			2	1.314	1.554	1.127	1.221	1.364	
			3	1.209	0.964	0.915	1.436	0.935	
			4+	0.819	0.766	1.605	0.852	1.962	

Table 12 Cross Classified Multi-Family Trip Generation Rates

Land Use Category					Household Size				
					1	2	3	4	5 +
Multi Family Multi Family	Production	H-W	Auto Ownership Auto Ownership	0	0.740	1.976	1.076	0.372	0.561
				1	0.621	1.756	1.222	1.646	2.266
				2	1.500	1.886	1.875	1.783	2.788
				3	2.321	2.321	2.733	2.511	1.660
				4+	1.312	3.330	2.621	3.001	4.526
		H-SC		0	0.004	2.233	1.134	0.971	2.333
				1	0.018	0.576	0.956	3.466	10.494
				2	0.021	0.123	1.702	3.710	5.926
				3	0.009	0.304	0.090	2.873	5.755
				4+	0.011	0.368	0.109	3.481	6.974
		H-S		0	1.556	0.191	0.541	0.529	4.513
				1	1.149	0.544	1.478	0.540	3.592
				2	0.473	1.520	0.427	0.977	8.631
				3	1.165	0.969	3.084	0.577	4.926
				4+	0.857	0.713	2.269	0.425	3.625
		H-O		0	0.664	0.909	3.083	2.185	2.347
				1	1.713	2.122	3.881	3.862	5.674
				2	0.315	2.464	3.014	5.363	5.393
				3	0.734	1.195	1.753	5.126	3.086
				4+	0.735	1.197	1.755	5.134	3.091
	O-O	0	0.011	0.020	0.006	0.009	0.012		
		1	0.960	0.551	0.489	0.037	0.418		
		2	0.113	0.947	0.091	0.220	0.491		
		3	2.157	3.365	2.805	1.157	1.389		
		4+	1.462	2.672	4.919	0.687	2.914		
	Attraction Production	W-O	0	0.072	0.099	0.335	0.238	0.255	
			1	0.274	0.339	0.620	0.617	0.906	
			2	0.050	0.394	0.481	0.857	0.861	
			3	0.117	0.191	0.280	0.819	0.493	
			4+	0.117	0.191	0.280	0.820	0.494	
		O-O H-W	0	0.011	0.020	0.006	0.009	0.012	
			1	0.960	0.551	0.489	0.037	0.418	
			2	0.113	0.947	0.091	0.220	0.491	
			3	2.157	3.365	2.805	1.157	1.389	
			0	0.740	1.976	1.076	0.372	0.561	

Table 13 Employment Trip Generation Rates

Land-Use		Trip Purpose					
		H-W	H-SC	H-S	H-O	W-O	O-O
Retail	Productions	--	--	--	--	1.73	4.89
Service		--	--	--	--	1.15	0.29
Educ		--	--	--	--	1.15	--
Govt		--	--	--	--	1.15	2.01
Other		--	--	--	--	1.04	--
Retail	Attractions	1.32	--	5.75	2.59	1.73	4.89
Service		1.32	--	--	3.45	1.15	0.29
Educ		1.32	20.70	--	--	1.15	--
Govt		1.32	--	--	1.90	1.15	2.01
Other		1.32	--	--	1.32	1.04	--

10.2.3 Trip Attractions

Home-Work attractions can be derived from the travel survey. Each surveyed person was also asked about their type of employment. The average number of home-work commute trips for each type of employment can be calculated from these survey records.

Home-Shop attractions were estimated by assuming that all Home-Shop trips are attracted to retail employees. This is simplification, since some trips that people classify as Home-Shop may be attracted to service or other employees (for example, a trip to the bank).

Trip attractions for other purposes are difficult to derive directly from limited travel survey data. Work-Other trips and Other-Other trips are allocated based in order to fill out trip generation rates for employment types using ITE rates as a guide with the end in mind that these trips should be balanced and countywide totals by purpose should be reasonably well matched with survey results.

The initial estimates of trip generation rates provided a close match with Stanislaus County totals reported in the Caltrans Statewide Travel Survey. However, tests of the model indicated that trips were underestimated, particularly along urban arterials and collectors.

It is assumed that the most likely trips to be under-reported in the travel survey would be incidental trips, such as a trip from the grocery store to the laundry. These trips mostly fall into the Other-Other category.

The Other-Other production and attraction rates for each employment type were estimated by comparing the trip generation to standard vehicle trip generation rates in the *ITE Trip Generation Manual* (Institute of Transportation Engineers, 7th Edition,

2004). The model person trip generation rates were converted to vehicle trips using auto occupancies for each trip purpose. The vehicle trip rates were compared for each employment type. The Other-Other trip rates were increased so that the model trip generation rates would replicate the ITE vehicle trip generation rates.

10.3 Cordon or “Gateway” Trips

There are two types of trips at the cordons or “gateways” of the TPPG model, through trips (external-external or X-X) and external trips (external-internal, internal-external or I-X/X-I). Through trips are trips that pass through the model area without stopping (e.g., a trip from San Joaquin County to Merced). External trips have one end in Stanislaus County and one end outside Stanislaus County (e.g., a trip from San Joaquin County). External trip assumptions are shown in Appendix A. The external vehicle trips for each trip purpose are multiplied by the appropriate average auto occupancy rate to convert them to person trips. Initial estimates of productions and attractions at each gateway are adjusted to provide an overall balance of gateway person-trip productions and attractions with internal person-trip productions and attractions. These “gateway” trips are then distributed to the model zones along with the internal model area trips.

10.3.1 Through Trips

The largest numbers of through trips pass through the county on SR 99. Daily 2005 vehicle through trips were estimated for Stanislaus County based on actual counts at the gateways and the proportion of trips considered to be through trips in the Caltrans Statewide Model. Future through trips were factored from the 2025 scenario of the Statewide Model. Peak hour through trips were factored based on peaking factors and directional factors on freeway gateways and adjusted during calibration.

10.3.2 External Trips

External trips to and from Stanislaus County were estimated from 2005 traffic counts at the cordon points. Through trips were subtracted from the traffic counts, leaving just the external vehicle trips that have only one end in Stanislaus County. External trips (I-X and X-I) at each of the gateways were split into the six trip purposes (home work, home-shop, home-other, other-work, other-other) based on Stanislaus County averages.

10.4 Special Generators

Special generators are used to include trips from land uses that are not well represented by the standard trip rates. In the TPPG model, special generators are used primarily to define Home-Other trips attracted to recreational areas such as parks and golf courses. Typical vehicle trip generation values were estimated for each of these recreational areas based on previous studies. The vehicle trips are converted to person trips using

Dowling Associates

Transportation Engineering • Planning • Research • Education

average auto occupancy rates. The special generator trips are then added to the appropriate TAZs after trips are calculated using the standard household and employment trip generation rates. (shows the special generators used in the model.)

11. THE FORECASTING PROCESS - TRIP DISTRIBUTION

The trip distribution process estimates how many trips travel from one zone to another. Consistent with many regional models across the country, the TPPG model uses a method known as the gravity model to estimate trips between zones based on the trip productions and attractions in each zone and on factors that relate the likelihood of travel between zones to the separation between the zones.

11.1 Description of Gravity Model

The gravity model follows the concept of Isaac Newton's Universal Law of Gravitation, which states that the attractive force between two bodies is proportional to the product of their masses and inversely proportional to the square of the distance between them. Similarly, zone-to-zone trip interchanges in the gravity model are directly proportional to the relative attraction or opportunity provided by each of the zones (productions and attractions) and inversely proportional to the spatial separation between zones. Expressed mathematically, the gravity model formula of trip distribution is:

$$T_{ij} = P_i * \frac{A_j F(t_{ij}) K_{ij}}{\text{Sum}_{x=1,n} [A_x F(t_{ij}) K_{ij}]}$$

where: T_{ij} = number of trips produced in zone i and attracted to zone j

P_i = total number of trips produced in zone i

A_j = attractions of zone j

t_{ij} = travel time in minutes between zone i and zone j

$F(t_{ij})$ = the friction factors between zone i and zone j

K_{ij} = zone-to-zone adjustment factor

n = number of zones

The inputs to the gravity model include the person trip productions and attractions for each zone (as defined earlier in the trip generation step), the zone-to-zone travel times, and friction factors that define the effects of travel time. The zone-to-zone distributions are calculated separately for each trip purpose.

11.2 Zone-To-Zone Travel Times

The travel time between each pair of zones is calculated by determining the shortest time path along the coded road network between the two zones, and accumulating the travel time along that path. The path building process produces a table (skim matrix) of travel times between each pair of zones in the study area. The resulting table of zone-to-zone travel times is then used as an input to the trip distribution analysis.

For this estimation, road travel times are used since the large majority of person-travel is on the road system. Uncongested (free flow) travel times are used in the initial estimates of the trip distribution, but travel times which reflect congestion levels are used for the final trip distribution.

11.2.1 Intrazonal Travel Times

Intrazonal travel times represent the average travel time for trips that stay within a particular zone. They are estimated based on 50 percent of the travel time to the nearest adjacent zone.

11.2.2 Terminal Times

Terminal times are also added to represent the average time to access one's vehicle at each end of a trip. The TPPG model assumes an average terminal time of one minute for most trips.

11.3 Friction Factors

The effects of spatial separation in the gravity model are represented empirically by "friction factors" that express the effect that travel time exerts on the propensity for making a trip to a given zone. Typically the probability for making a particular trip declines as the travel time increases. For the TPPG model, five sets of friction factors are used, with each set corresponding to one of the five trip purposes. This accounts for the possibility that people may be willing to drive a long distance to go to work, but only short distances for most shopping or school trips.

11.4 Adjustment Factors

Adjustment Factors ("K factors") can be used in gravity model trip distribution calculations where travel time does not fully explain the attractiveness or unattractiveness of certain trips. The adjustments are often used where bridges, other perceived travel barriers or special socioeconomic factors (such as housing prices or campus housing areas) may distort the distribution of trips between specific areas.

K-Factors are not used by default in the TPPG model. The inclusion of K-factors may be suitable for specific model applications but this should only be undertaken by advanced users.

12. THE FORECASTING PROCESS - TRIP ASSIGNMENT

In this step, zone-to-zone trips from the trip distribution step are assigned to the network. The TPPG model does not currently assign transit trips to a transit network.

12.1 Traffic Assignment

The TPPG model uses a process known as “equilibrium” assignment to assign vehicles. Vehicle trips are initially assigned to the road network using the all-or-nothing method, which assumes that all drivers will use the fastest route without regard to congestion caused by other vehicles. Travel times on the road network are recalculated based on the estimated level of congestion, and trips are reassigned to paths based on the congested speeds. The process is repeated for several iterations. After each iteration, some traffic is shifted to alternative routes with competitive travel times. The equilibrium assignment method is intended to ultimately assign traffic so that no driver can shift to an alternative route with a faster travel time. The overall road system is considered to be at equilibrium at this point.

The TPPG model uses eight iterations for each final traffic assignment.

12.1.1 Traffic Assignment Time Periods

The TPPG model assigns traffic for daily traffic and for the AM and PM peak hours. Peak hour traffic is derived from daily traffic and assigned after feedback (see sections 7 and 8).

12.1.2 Congested Travel Speeds

The relationship of speed to congestion on a particular roadway is based on a set of curves which are included in the traffic assignment model. The curves are based on the standard British Public Roads Curve:

$$T = T(\text{free Flow}) * (1 + 0.15(\text{VC}/0.75)^4) \quad \text{BPR Speed Curve}$$

For example, the curves may indicate that an arterial street with no congestion will operate at 35 miles per hour so that a segment of that street takes 60 seconds to traverse, while an arterial link with a traffic volume equal to 90 percent of the capacity of the link will operate at about 27 miles per hour and take 80 seconds to traverse.

Adjustment to this basic curve are made during validation and calibration. Adjusted curves are employed for:

Dowling Associates

Transportation Engineering • Planning • Research • Education

Rural Highways /Unsig. Arterials	$= T_0 * (1 + 0.15 * (VC/0.75)^4) + (0.15 * (VC/0.95)^{12})$
Collectors	$= T_0 * (1 + 0.15 * (VC/0.9)^6)$
Rural Collector	$= T_0 * (1 + 0.25 * (VC/0.6)^4)$
Unsignalized Collector	$= T_0 * (1 + 0.1 * (VC / 0.85)^4)$
Centroid Connector	$= \min((T_0 * 30.0), (T_0 * (1 + 0.15 * (VC / 0.25)^4)))$
Class B Expressway	$= T_0 * (1 + 0.15 * (VC/0.75)^4 + 0.05 * (VC/0.98)^6)$
Class C Expressway	$= T_0 * (1 + 0.15 * (VC/0.75)^4 + 0.05 * (VC/0.98)^6)$

Identical speed curves are used by the model for the daily and peak hour assignment processes.

12.2 Pricing

The TPPG travel model does not explicitly consider travel cost considerations. Travel costs would include auto operating costs (fuel, insurance, repairs), parking costs, transit fares and tolls. These cost factors become most important when the travel model is considering the trade-offs between autos and other modes such as transit. If a mode choice analysis capability is added to the TPPG model, these cost parameters would be added at the appropriate analysis steps

13. THE FORECASTING PROCESS - FEEDBACK MECHANISMS

The TPPG travel model includes a feedback loop that uses congested travel times as an input to the trip distribution step. The feedback loop is intended to ensure that the congested travel impedances (times) used for final traffic assignment and as input to the air quality analysis are consistent with the travel impedances used throughout the model process.

For the TPPG model, the feedback loop is considered to converge when the travel times that result from the congested travel speeds after traffic assignment compare closely with the travel times used as input to the trip distribution process.

13.1 TPPG Model Feedback Loop

In an effort to meet all Transportation Conformity Rule modeling requirements as part of the model integration, a full feedback loop process was implemented that iterates until it reaches a set of convergence criteria. The convergence criteria are consistent with Transportation Conformity Rule Section 93.12 (b)(1)(v).

13.1.1 Congested Travel Times

The initial trip distributions for all six trip purposes are calculated using uncongested (free-flow) travel times on the road network. After the initial trip distribution and assignment, the congested travel times calculated from the most recent daily traffic assignment are used as input to the trip distribution and the distribution is rerun. The feedback loop convergence criteria are based on convergence of the congested travel times.

13.1.2 Method of Successive Averages

In order to speed up the convergence of the feedback loop, an interpolation method is used. The method of successive averages takes the latest set of congested travel times calculated from the latest traffic assignments, and calculates a weighted average with the latest set of travel times used as input to trip distribution. The weighting is based on the number of iterations. For example, after the fourth pass through the feedback loop, the weighted average would be calculated as one-quarter (0.25) times the latest set of congested travel times plus three-quarters (0.75) times the previous set of congested travel times. This process is repeated until the convergence criteria are met. The base year model currently converges in three loops.

13.1.3 Convergence Criteria

A set of convergence criteria were developed specifically for this model to ensure that the congested travel speeds used as input to the air quality analysis are consistent with the travel speeds used throughout the model process, as required by the Transportation Conformity Rule.

The congested travel speeds used as input to the air quality analysis come from the final traffic assignments. The congested travel speeds used throughout the model process are those used as input to the trip distribution step (and mode choice step if implemented). Therefore, the convergence criteria are applied by comparing the congested travel speeds from the latest traffic assignments with the congested travel speeds and times most recently used as input to trip distribution. The inputs to trip distribution are calculated as a weighted average using the method of successive averages as described above.

The TPPG model feedback loop is considered to converge when:

1. Less than 5% of the origin-destination pairs have daily congested travel times that change by more than 5% between iterations; and
2. The weighted average change in daily link traffic volumes is less than 5% between iterations (the average percent change is weighted by the link volume).

If the first two criteria do not result in convergence after five iterations through the feedback loop, it indicates that the network is very congested and the traffic assignments are oscillating between one set of routes and another. The following criteria are then used after seven feedback iterations:

1. The weighted average change in daily congested travel times between origin-destination pairs is less than 5% between iterations (average weighted by number of origin-destination trips); and
2. The weighted average change in daily congested travel times between origin-destination pairs is less than 5% between iterations (average weighted by vehicle-miles of travel); and
3. The weighted average change in daily link traffic volumes is less than 5% between iterations (the average percent change is weighted by the link volume).

The second set of convergence criteria were found to close during tests even with very congested future travel demands.

14. THE FORECASTING PROCESS - PEAKING FACTORS

The TPPG peak period model has been set up to estimate travel demand during the AM and PM peak hour. Peak hour volumes are often required for capacity analysis and local traffic studies.

14.1 Time-of-Day Factors

The AM peak hour period trips, the PM peak hour period trips and the off-peak 18-hour period trips are calculated by factoring the daily trips after trip distribution. The daily trips are factored separately for each trip purpose as shown below in .

The time-of-day factors are based on information from the 2001 Caltrans travel survey (Appendix C). Many travel models use time-of-day factors which are based on the start times of each trip. The TPPG model uses factors which are based on the “midpoint” of each trip, looking at both the start and end times. This technique provides a more representative estimate of the number of trips in progress during each time period. During model validation, the factors were adjusted from the survey results.

These peak hour factors should be reviewed and updated when new peak hour traffic count and survey information is available.

Table 14 Time of Day Factors

Trip Purpose	Percent of Daily Trips		
	Productions to Attractions	Attractions to Productions	Total
AM PEAK			
Home-Work	10.26	0.532	10.79
Home-School	21.7	0.07	21.77
Home-Shop	0.72	0.12	0.84
Home-Other	5.52	1.38	6.90
Work-Other	1.25	9.125	10.38
Other-Other	2.88	1.62	4.50
PM PEAK			
Home-Work	0.94	13.22	14.16
Home-School	0.11	2.69	2.80
Home-Shop	2.74	6.76	9.51
Home-Other	3.02	4.82	7.84
Work-Other	11.50	0.63	12.13
Other-Other	4.12	1.76	5.88

APPENDIX A – VALIDATION

Model Validation

Model validation refers to comparing the model volumes to observed volumes. The following sections describe how traffic data was collected and organized by screenlines, the validation criteria to be met according to the scope of work, and finally the validation results.

Traffic Data

Traffic data for the year 2000 validation were obtained from a variety of sources, including traffic counts provided by the StanCOG, Stanislaus County, and the Cities of Ceres, Hughson, Modesto, Newman, Oakdale, Patterson, Riverbank, Turlock, and Waterford. Special acknowledgement is also due to a number of private consultants including KdAnderson and Associates, Omni Means Associates, Fehr and Peers and Associates, and TJKM and Associates for providing data in electronic format. Data was also obtained from sources published or maintained by the California Department of Transportation (Caltrans).

Daily counts and peak hour counts were input directly into a database. Over 2,200 peak hour 580 daily traffic counts were entered. Duplicate counts were eliminated by replacing older counts with newer counts and estimates of daily traffic were developed based on peak hour traffic and the peaking factors obtained from the statewide travel survey. This resulted in 1,305 unique counts/count estimates for each of the AM, PM and daily traffic periods. The counts utilized were included to allow the comparison of model output and observed traffic volumes based on screenlines.

Proposed Validation Criteria

It is proposed that the TPPG consolidated transportation model traffic validation be based on several criteria, including the following:

- Comparison to Vehicle Miles of Travel (VMT) from the Caltrans Highway Performance Monitoring System (HPMS)
- Comparison of model counts to observed traffic counts.
- The percentage of links falling within the FHWA validation curve. The FHWA suggested link-specific validation criteria is that 75% of freeway and principal arterials fall below the validation criteria and 100% of screenlines fall below the validation curve shown in Figure 1.
- Use the Federal Highway Administration and Caltrans recommended error limits for total error by functional classification (type of road) as a regionwide validation :

Dowling Associates

Transportation Engineering • Planning • Research • Education

- Freeways less than 7 percent error
- Principal Arterials less than 10 percent error
- Minor Arterials less than 15 percent error
- Collectors less than 25 percent error

HPMS Traffic Validation Results

Vehicle Miles of Travel

Vehicle Miles of Travel (VMT) is calculated as the number of vehicles on a road segment multiplied by the length of the segment, summed over all road segments in a certain geographic area. The Caltrans Highway Performance Monitoring System (HPMS) estimates daily vehicle miles of travel for each county in California based on a sample of traffic counts on various road types (2005 California Public Road Data, Caltrans, 2006). A comparison of model-estimated VMT with VMT from the HPMS can indicate if the model is generating the correct magnitude of travel, even if there are inaccuracies in the specific road segment traffic volumes.

Vehicle miles of travel are calculated from the TPPG travel demand model by multiplying link volumes by link distances and comparing with the HPMS estimates. The FHWA model validation criterion is that the VMT calculated from the model should be within 5% of the HPMS estimate. The VMT from the final validation including intrazonal VMT is just under one percent lower than the VMT from HPMS. This indicates that the model is generating an appropriate amount of traffic within Stanislaus County.

Table B1. Daily Validation by VMT

2005 HPMS	2005 Model	Percent	FHWA Standard	Meets Criteria
11,301,000	11,448,572	-1.3%	+/-5.00%	YES

FHWA Criteria

Total Volumes

The traffic counts and the model volumes are compared by facility type and by the volume range in which they are classified (Table A-1). The comparison is made in terms of total model volume compared to total traffic counts. A measure of variation is also provided, the root mean square error (RMSE).

Dowling Associates

Transportation Engineering • Planning • Research • Education

Table A1: Daily Count/ Model Volume Comparison by Facility Type

Facility Type	CapClass	Criteria	Observed Counts	Model Volumes	No. of Links	Diff.	Delta2	Pct. Diff.	MSE	%RMSE	Meets Criteria
Freeways	1	+/- 7%	884,000	901,036	18	17,036	470,821,408	1.9%	26,156,745	10%	YES
Principal Arterials	2	+/- 10%	1,241,862	1,357,250	168	115,388	851,505,534	9.3%	5,068,485	30%	YES
Arterials	3	+/- 15%	3,721,154	4,047,345	419	326,191	3,872,614,449	8.8%	9,242,517	34%	YES
Collectors	4	+/- 25%	1,349,257	1,369,502	567	20,245	912,461,190	1.5%	1,609,279	53%	YES
All			7,196,273	7,675,133	1,172	478,860	6,107,402,581	6.7%	5,215,544	37%	

Table B2: AM 1-Hour Count/ Model Volume Comparison by Facility Type

Facility Type	CapClass	Criteria	Observed Counts	Model Volumes	No. of Links	Diff.	Delta2	Pct. Diff.	MSE	%RMSE	Meets Criteria
Freeways	1	+/- 7%	66,088	61,726	18	(4,362)	15,772,052	-6.6%	876,225	25%	YES
Principal Arterials	2	+/- 10%	102,646	111,831	168	9,185	10,483,553	8.9%	62,402	41%	YES
Arterials	3	+/- 15%	306,096	315,450	419	9,354	35,866,564	3.1%	85,600	40%	YES
Collectors	4	+/- 25%	118,999	101,323	567	(17,676)	12,437,272	-14.9%	21,935	71%	YES
All			593,829	590,330	1,172	(3,499)	74,559,441	-0.6%	63,672	50%	

Table B3: PM 1-Hour Count/ Model Volume Comparison by Facility Type

Facility Type	CapClass	Criteria	Observed Counts	Model Volumes	No. of Links	Diff.	Delta2	Pct. Diff.	MSE	%RMSE	Meets Criteria
Freeways	1	+/- 7%	75,030	70,909	18	(4,121)	12,315,479	-5.5%	684,193	20%	YES
Principal Arterials	2	+/- 10%	117,189	127,812	168	10,623	34,602,027	9.1%	205,964	65%	YES
Arterials	3	+/- 15%	347,885	371,500	419	23,615	42,049,445	6.8%	100,357	38%	YES
Collectors	4	+/- 25%	127,074	121,512	567	(5,562)	9,513,712	-4.4%	16,779	58%	YES
All			667,178	691,733	1,172	24,555	98,480,663	3.7%	84,100	51%	

Table B4: Daily Count/ Model Volume Comparison by Volume Range

From	Volume Range To	Criteria	Observed Counts	Model Volumes	No. of Links	Diff.	Delta2	Pct. Diff.	MSE	%RMSE	Meets Criteria
1	5,000	+/- 60%	2,552,764	2,883,783	1,215	331,019	2,616,694,469	13.0%	2,153,658	70%	YES
5,000	10,000	+/- 55%	2,456,219	2,526,572	341	70,353	1,990,374,973	2.9%	5,836,877	34%	YES
10,000	20,000	+/- 45%	2,660,368	2,700,118	202	39,750	1,921,993,818	1.5%	9,514,821	23%	YES
20,000	30,000	+/- 40%	372,383	342,235	17	(30,148)	222,351,540	-8.1%	13,079,502	17%	YES
30,000	40,000	+/- 37%	65,612	49,324	2	(16,288)	144,960,194	-24.8%	72,480,097	26%	YES
40,000	50,000	+/- 34%	100,000	105,241	2	5,241	14,282,145	5.2%	7,141,073	5%	YES
50,000	75,000	+/- 28%	807,000	830,600	14	23,600	457,972,890	2.9%	32,712,349	10%	YES
Sum			9,014,346	9,437,873	1,793	423,527	7,368,630,029	4.7%	4,111,959	40%	

Facility Type. The Federal Highway Administration² and Caltrans³ recommend error limits for total error by functional classification (type of road):

- Freeways less than 7 percent error
- Principal Arterials less than 10 percent error
- Minor Arterials less than 15 percent error
- Collectors less than 25 percent error
- Frontage Roads less than 25 percent error

For the TPPG consolidated transportation model, the “Principal Arterial” criterion is applied to expressways and inter-urban highways, while the “Minor Arterial” criterion is applied to all local arterial streets.

The 2005 traffic validation of the TPPG model meets the criteria for all facility types, for Daily, AM and PM peak hour volumes. Key steps in achieving validation included:

- The development of new capacity class: rural collector with a capacity of 950 vehicles per hour per lane (vphpl) for one directional lane and 850 vphpl for 2 or more lanes,
- The modification of speed curves based on multiple validation runs,
- The adjustment of trip generation rates and review of land use inputs
- Peak hour validation was further facilitated through the adjustment of peaking factors across trip purposes.

Volume Range. Table B-1 lists the volume ranges which are recommended for the comparison of daily traffic counts to model volumes by volume range. The final model validation meets the FHWA criteria for all ten of the volume ranges. For those volume ranges, the total model volume is within 1 percent of observed volumes

Root Mean Square Error. The root mean square error (RMSE) is a statistical estimator that is intended to represent the average percent error between an estimated value (such as a model volume) and an observed value (such as a traffic count). The RMSE is calculated as:

$$RMSE = \sqrt{\frac{\sum_{i=1}^n (C_i - V_i)^2}{n}}, \text{ where}$$

- n is the total number of links
- C_i is the observed count for road i

² Federal Highway Administration, *Calibration and Adjustment of System Planning Models*, 1990

³ California Department of Transportation, *Travel Forecasting Guidelines*, 1992

- V_i is the model volume for road i
- i represents a road link

The RMSE provides a measure of accuracy based on the statistical standard deviation. The RMSE puts a greater emphasis on larger errors that may cancel each other out in the comparison of total model volumes and traffic counts. The overall target daily RMSE is 40 percent, which is met generally ranges. Generally on low volume roads RMSE will be relatively high as small differences in absolute volume represent large increases in RMSE on low volume roads. Similarly, peak hour RMSE is typically higher than daily RMSE.

Screenlines

Screenlines are imaginary lines, often along natural or man-made physical barriers (e.g., rivers, railroad tracks) that ideally have a limited number of crossings. To the extent possible screenlines should “cut” the entire study area, intercepting all travel across them, thereby eliminating issues about individual route choice. Use of a system of screenlines allows systematic comparison of total model estimated versus observed travel in different parts of the model area. However, they do not ensure that traffic is being assigned to the correct routes across each screenline. The study area includes 20 screenlines (See Figure A1.)

Screenline Validation

A comparison of model volumes to 2005 traffic counts across screenlines for the daily period is presented based for 20 screenlines. The locations of these screenlines are shown on Figure B1. The 20 screenlines are presented in Table B3. Under both the two way and one way comparisons all of the are satisfactory. Screenlines are broken down by direction of travel. Northbound and Eastbound travel across screenlines are shown together on Figure B2. Southbound and Westbound are shown on Figure B3. Figure B4 shows the maximum tolerances under the FHWA criteria

Dowling Associates

Transportation Engineering • Planning • Research • Education

Table 1. Screenline Comparisons

Screenline	Dir.	Model Volume	2005 Count	Percent Deviation	Meets Criteria	Dir.	Model Volume	2005 Count	Percent Deviation	Meets Criteria
1. North of Stadford Road	N	96,746	75,613	27.9%	YES	S	97,833	82,009	19.3%	YES
2. South of Kiernan Avenue	N	100,656	109,233	7.9%	YES	S	101,868	108,934	6.5%	YES
3. West of Dale Road	E	43,023	47,348	9.1%	YES	W	38,145	40,413	5.6%	YES
4. East of McHenry Avenue	E	81,558	77,723	4.9%	YES	W	83,216	79,385	4.8%	YES
5. East of Claus Road	E	19,374	17,973	7.8%	YES	W	28,375	26,827	5.8%	YES
6. Tuolumne River	E	55,109	57,282	3.8%	YES	W	55,310	58,808	5.9%	YES
7. East of Sisk Road	E	76,328	80,259	4.9%	YES	S	65,787	73,221	10.2%	NO
8. East of Oakdale Road	E	65,997	65,638	0.5%	YES	W	64,925	67,378	3.6%	YES
9. South of Pelandale Avenue	N	111,979	113,413	1.3%	YES	S	111,765	112,103	0.3%	YES
10. East of Albers Road/Geer Road	E	33,072	43,811	24.5%	YES	W	32,921	43,092	23.6%	YES
11. Tuolumne Road	N	30,573	33,845	9.7%	YES	S	33,458	33,470	0.0%	YES
12. North of Briggsmore Avenue	N	47,281	44,535	6.2%	YES	S	46,949	45,362	3.5%	YES
13. West of Carpenter Road	E	25,111	27,600	9.0%	YES	W	23,731	22,452	5.7%	YES
14. South of Murphy Road	N	2,850	4,047	29.6%	YES	S	2,149	4,188	48.7%	YES
15. South of Sperry Road/Las Palmas Avenue	N	18,935	20,196	6.2%	YES	S	25,373	25,091	1.1%	YES
16. West of Coffee Road	E	88,078	85,706	2.8%	YES	W	88,789	83,538	6.3%	YES
17. South of Service Road	N	87,057	82,216	5.9%	YES	S	85,623	82,904	3.2%	YES
18. South of West Main Street	N	8,780	6,846	28.3%	YES	S	8,781	6,837	28.4%	YES
19. San Joaquin River	E	28,697	22,052	30.1%	YES	W	28,717	22,200	29.4%	YES
20. West of Faith Home	E	9,896	8,620	14.8%	YES	S	9,831	8,438	16.5%	YES

Figure 1. 2005 Screenline Locations

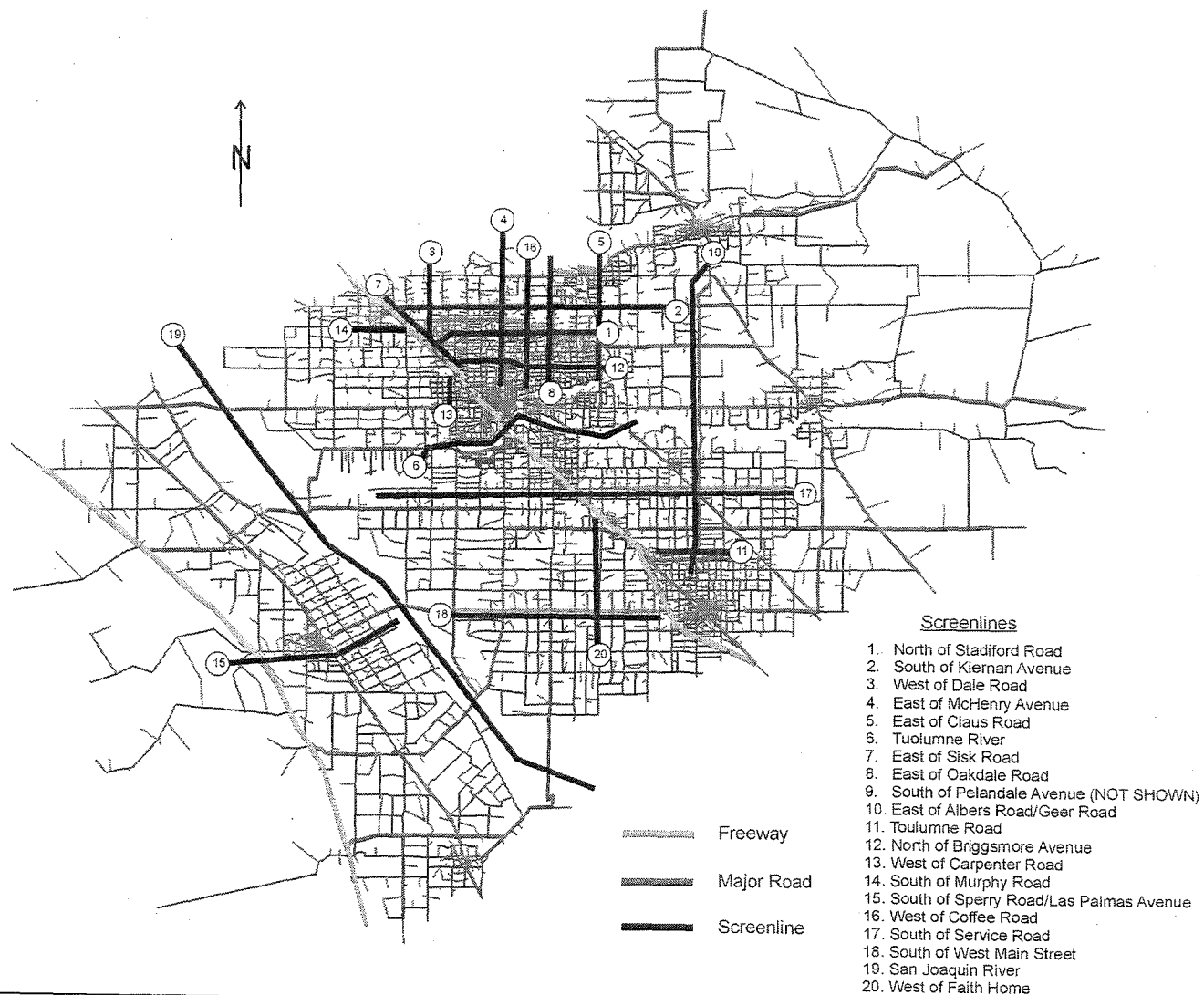


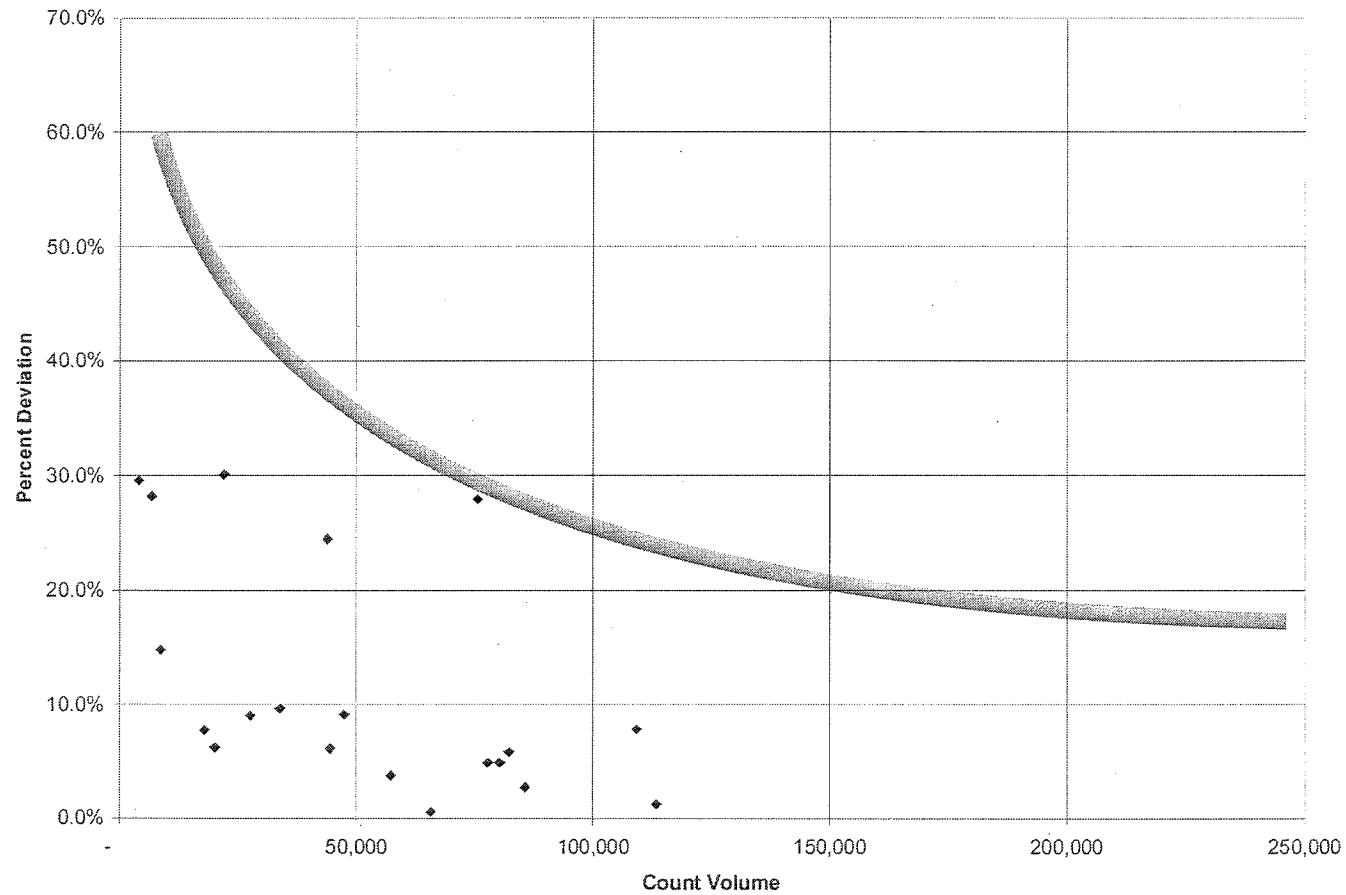
Figure B2. Northbound/Eastbound One-Way Screenline Deviation versus Validation Criteria

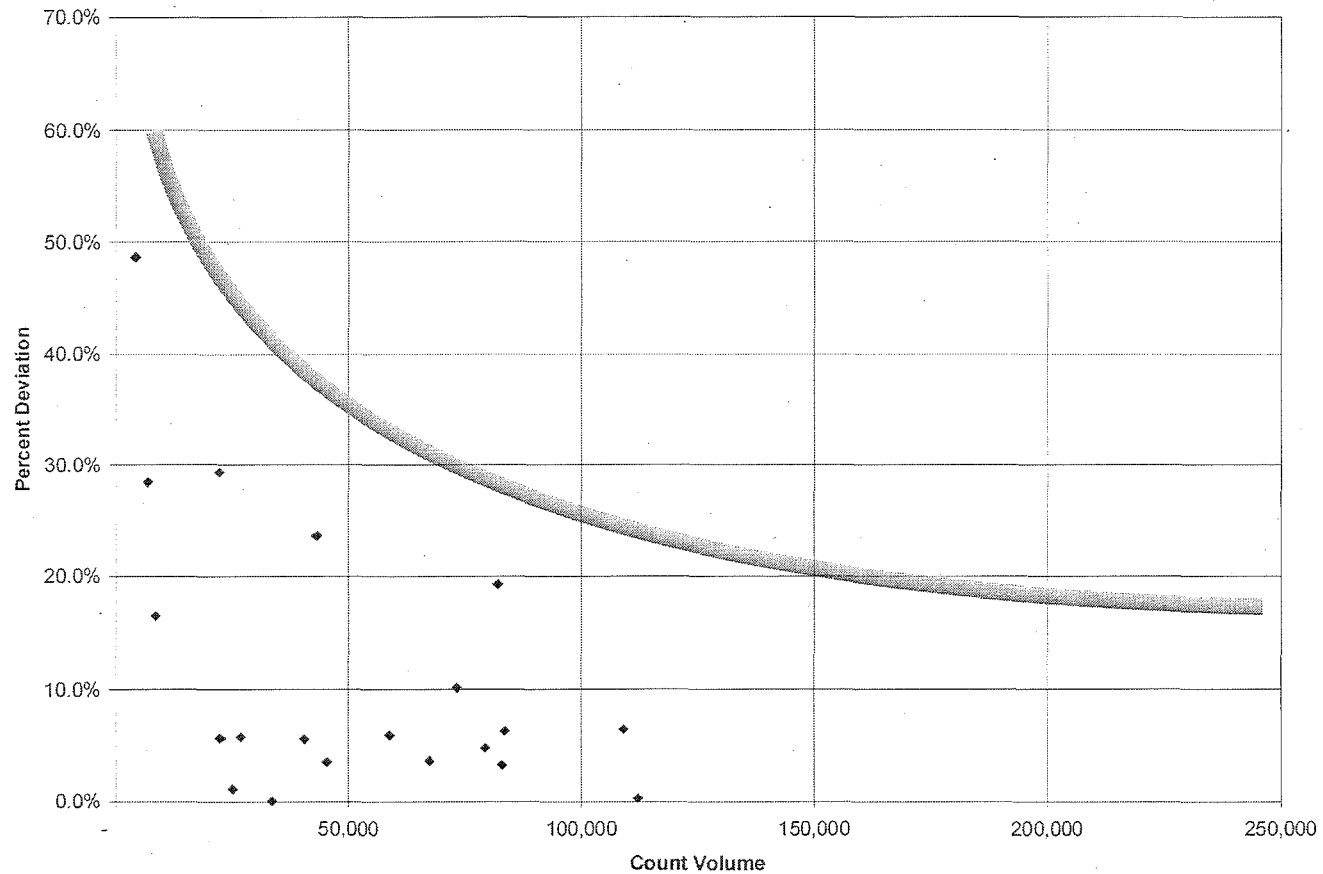
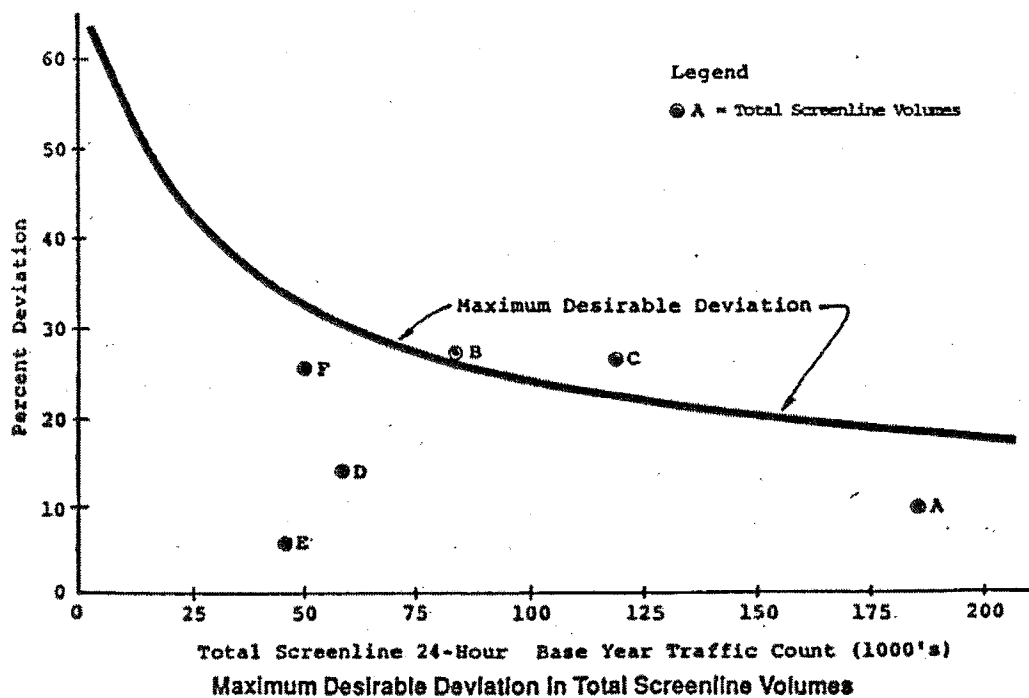
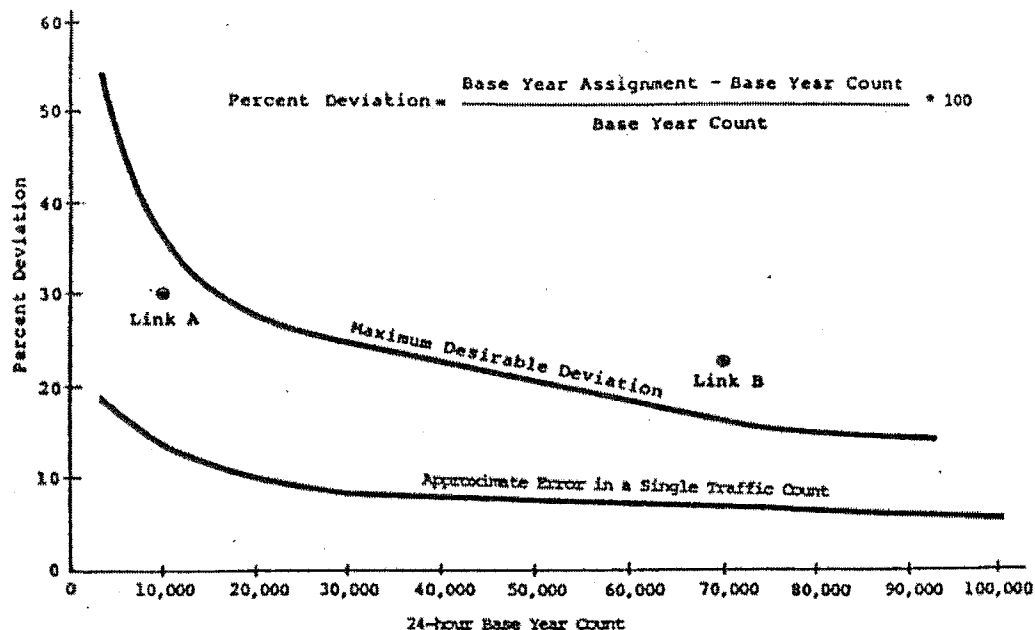
Figure B3. Westbound/Southbound One-Way Screenline Deviation versus Validation Criteria

Figure B4 Maximum Desirable Error for Links and Screenlines



Appendix B

External and Through Trips

Dowling Associates

Transportation Engineering • Planning • Research • Education

Zone	Gateway	Count Location	2005	2005	2005	2005	Annual	2005	Estimated Trip Purpose Percentages							
			Volume	Volume	% Thru	Thru	Growth	I-X / X-I	H-W	H-SCH	H-S	H-O	W-O	O-O	CV	Total
1	I-5	San Joaquin County Line	39,000	39,000	86%	33,540	-0.5%	5,460	43%	1%	11%	21%	10%	14%	0%	100%
2	Blewett Road	San Joaquin County Line	592	592	0%	0	3.1%	592	43%	1%	11%	21%	10%	14%	0%	100%
3	S.R. 132	San Joaquin County Line	19,800	19,800	6%	1,188	2.6%	18,612	43%	1%	11%	21%	10%	14%	0%	100%
4	Koster Road	San Joaquin County Line	3,551	3,551	0%	0	3.1%	3,551	43%	1%	11%	21%	10%	14%	0%	100%
5	S.R. 33	San Joaquin County Line	1,700	1,700	0%	0	16.5%	1,700	43%	1%	11%	21%	10%	14%	0%	100%
6	River/McCracken Road	San Joaquin County Line	2,249	2,249	0%	0	3.1%	2,249	43%	1%	11%	21%	10%	14%	0%	100%
7	S.R. 99	I-99 N	116,000	116,000	36%	41,180	1.4%	74,820	34%	1%	25%	15%	11%	14%	0%	100%
8	McHenry Avenue	San Joaquin County Line	13,513	13,513	18%	2,432	2.3%	11,080	43%	1%	11%	21%	10%	14%	0%	100%
9	Santa Fe Avenue	San Joaquin County Line	9,072	9,072	0%	0	2.4%	9,072	43%	1%	11%	21%	10%	14%	0%	100%
10	River Road	San Joaquin County Line	2,726	2,726	32%	872	2.4%	1,854	43%	1%	11%	21%	10%	14%	0%	100%
11	Valley Home Road	San Joaquin County Line	1,436	1,436	32%	479	2.4%	1,017	43%	1%	11%	21%	10%	14%	0%	100%
12	Dodds Road	San Joaquin County Line	663	663	32%	212	2.4%	451	43%	1%	11%	21%	10%	14%	0%	100%
13	S.R. 108/120	Tuolumne County Line	22,700	22,700	79%	17,933	0.6%	4,767	26%	1%	14%	28%	14%	18%	0%	100%
14	Rock River Road	Tuolumne County Line	474	474	0%	0	3.1%	474	26%	1%	14%	28%	14%	18%	0%	100%
15	La Grange Road N	Tuolumne County Line	89	89	0%	0	-18.3%	89	26%	1%	14%	28%	14%	18%	0%	100%
16	S.R. 132	Mariposa County Line	2,050	2,050	41%	841	3.4%	1,210	41%	1%	11%	22%	11%	14%	0%	100%
17	Fields Road	Tuolumne County Line	3,906	3,906	0%	0	3.1%	3,906	26%	1%	14%	28%	14%	18%	0%	100%
18	La Grange Road S	Merced County Line	1,370	1,370	0%	0	-1.5%	1,370	35%	1%	13%	24%	12%	16%	0%	100%
19	Los Carritos	Merced County Line	1,776	1,776	0%	0	3.1%	1,776	35%	1%	13%	24%	12%	16%	0%	100%
20	Keyes Road	Merced County Line	518	518	0%	0	32.0%	518	35%	1%	13%	24%	12%	16%	0%	100%
21	Looney/Bledsoe	Merced County Line	1,184	1,184	0%	0	3.1%	1,184	35%	1%	13%	24%	12%	16%	0%	100%
22	East Avenue	Merced County Line	1,631	1,631	0%	0	3.0%	1,631	35%	1%	13%	24%	12%	16%	0%	100%
23	Oakdale Road	Merced County Line	1,184	1,184	0%	0	3.1%	1,184	35%	1%	13%	24%	12%	16%	0%	100%
24	Santa Fe Drive	Merced County Line	4,364	4,364	2%	87	17.8%	4,277	35%	1%	13%	24%	12%	16%	0%	100%
25	S.R. 99	I-99 S	75,000	75,000	56%	42,000	-0.5%	33,000	34%	1%	13%	25%	12%	16%	0%	100%
26	S.R. 165	Merced County Line	19,900	19,900	32%	6,368	2.3%	13,532	35%	1%	13%	24%	12%	16%	0%	100%
27	River Road	Merced County Line	3,000	3,000	32%	960	9.0%	2,040	35%	1%	13%	24%	12%	16%	0%	100%
28	August/American/Mitchell/F	Merced County Line	3,000	3,000	32%	960	9.0%	2,040	35%	1%	13%	24%	12%	16%	0%	100%
29	Canal/Brazo Road	Merced County Line	5,500	5,500	50%	2,750	9.0%	2,750	35%	1%	13%	24%	12%	16%	0%	100%
30	S.R. 33	Merced County Line	7,300	7,300	51%	3,723	4.4%	3,577	35%	1%	13%	24%	12%	16%	0%	100%
31	Upper Road	Merced County Line	1,315	1,315	0%	0	3.0%	1,315	35%	1%	13%	24%	12%	16%	0%	100%
32	Draper Road	Merced County Line	302	302	0%	0	3.0%	302	35%	1%	13%	24%	12%	16%	0%	100%
33	Eastin Road	Merced County Line	338	338	0%	0	12.1%	338	35%	1%	13%	24%	12%	16%	0%	100%
34	I-5	Merced County Line	38,500	38,500	81%	31,185	-0.1%	7,315	35%	1%	13%	24%	12%	16%	0%	100%
35	Del Puerto Canyon Road	West of I-5	144	144	0%	0	1.7%	144	26%	1%	14%	28%	14%	18%	0%	100%
36	FUTURE GATEWAY		0	0	0%	0	0.0%	0	36%	1%	12%	24%	12%	15%	0%	100%
37	FUTURE GATEWAY		0	0	0%	0	0.0%	0	36%	1%	12%	24%	12%	15%	0%	100%
38	FUTURE GATEWAY		0	0	0%	0	0.0%	0	36%	1%	12%	24%	12%	15%	0%	100%
39	FUTURE GATEWAY		0	0	0%	0	0.0%	0	36%	1%	12%	24%	12%	15%	0%	100%
40	S.R. 120	San Joaquin County Line	14,800	14,800	32%	4,736	3.3%	10,064	43%	1%	11%	21%	10%	14%	0%	100%
41	Route 4	San Joaquin County Line	4,800	4,800	93%	4,464	2.7%	336	43%	1%	11%	21%	10%	14%	0%	100%
42	Route 4	Calaveras County Line	5,400	5,400	92%	4,968	2.8%	432	34%	1%	13%	25%	12%	16%	0%	100%
43	Milton Road	Calaveras County Line	1,322	1,322	0%	0	4.4%	1,322	34%	1%	13%	25%	12%	16%	0%	100%
44	Harder Road	Merced County Line	343	343	0%	0	3.0%	343	35%	1%	13%	24%	12%	16%	0%	100%
45	Golf Road	Merced County Line	3,019	3,019	0%	0	3.0%	3,019	35%	1%	13%	24%	12%	16%	0%	100%
46	Lone Tree	San Joaquin County Line	2,553	2,553	32%	817	3.3%	1,736	43%	1%	11%	21%	10%	14%	0%	100%
47	Washington/Tenger/Elaine/H	Merced County Line	1,700	1,700	0%	0	3.0%	1,700	35%	1%	13%	24%	12%	16%	0%	100%
48	Clausen/W Bradbury	Merced County Line	2,476	2,476	0%	0	3.0%	2,476	35%	1%	13%	24%	12%	16%	0%	100%
49	Linwood/Roselawn/Vincent	Merced County Line	1,200	1,200	0%	0	3.0%	1,200	35%	1%	13%	24%	12%	16%	0%	100%
50	FUTURE GATEWAY		0	0	0%	0	0.0%	0	36%	1%	12%	24%	12%	15%	0%	100%
			443,518	443,518		201,695	5.0%	241,823								

Dowling Associates

Transportation Engineering • Planning • Research • Education

Table A-1
Roadway Segments with 2005 PM Peak Hour Level of Service E or F
(On Arterial Streets and Above)

	Roadway Segment	From	To	LOS
1	7th Street	Tuolumne Boulevard	Crows Landing Road	F
2	9th Street	Woodland Avenue	Needham Avenue	E
3	9th Street	Morton Boulevard	River Road	F
4	Bangs Avenue	Dale Road	McHenry Avenue	E/F
5	Bodem Street	Morris Avenue	Scenic Drive	F
6	Briggsmore Avenue	SR 99	Carver Road	F
7	Briggsmore Avenue	Coffee Road	Rose Avenue	E
8	Briggsmore Avenue	Oakdale Road	Lakewood Avenue	F
9	Broadway Avenue	SR 99	Finney Road	E/F
10	Carpenter Road	SR 99	Blue Gum Avenue	F
11	Carpenter Road	Maze Boulevard	Beverly Drive	E/F
12	Carpenter Road	Paradise Road	Whitmore Avenue	F
13	Carver Road	Rumble Road	Briggsmore Avenue	E/F
14	Carver Road	Orangeburg Avenue	9th Street	E/F
15	Celeste Drive	Vera Cruz Drive	Rose Avenue	F
16	Claribel Road	McHenry Avenue	Coffee Road	E
17	Coffee Road	Celeste Drive	Brighton Avenue	E/F
18	Coldwell Avenue	9th Street	Kearney Avenue	F
19	Conant Avenue	Standiford Avenue	Rumble Road	F
20	Crows Landing Road	7th Street	Butte Avenue	E/F
21	Dale Road	Venemen Avenue	Standiford Avenue	F
22	El Vista Avenue	Scenic Drive	Edgebrook Drive	F
23	Finch Road	Mitchell Road	McClure Road	E/F
24	Floyd Avenue	Oakdale Road	Lincoln Oak Drive	
25	Kansas Avenue	Carpenter Road	SR 99	F
26	Kiernan Avenue	SR 99	Stoddard Road	E/F
27	La Loma Avenue	Morton Boulevard	Buena Vista Drive	E
28	Maze Boulevard	Martin Luther King Drive	Washington Street	E/F
29	McHenry Avenue	Bangs Avenue	Claratina Avenue	F
30	McHenry Avenue	Briggsmore Avenue	Needham Avenue	E/F
31	Merle Avenue	Oakdale Road	Walnut Tree Drive	F
32	Mitchell Road	Finch Road	Hatch Road	F
33	Morris Avenue	Bodem Street	Coffee Road	E/F
34	Norwegian Avenue	McHenry Avenue	Coffee Road	E
35	Oakdale Road	Mable Avenue	Sylvan Avenue	E/F
36	Oakdale Road	Lancey Drive	Surrey Avenue	E/F
37	Orangeburg Avenue	Lakewood Drive	Lillian Drive	E
38	Orangeburg Avenue	Coffee Road	Sonoma Avenue	F
39	Paradise Road	Pine Tree Lane	Martin Luther King Drive	F
40	Pelandale Avenue	Chapman Road	Dale Road	E
41	Pelandale Avenue	Prescott Road	Carver Road	F
42	Pelandale Avenue / Claratina Avenue	Tully Road	Dragoo Park Drive	E
43	Prescott Road	Plaza Parkway	Briggsmore Avenue	F
44	Roselle Avenue	Floyd Avenue	Millbrooke Avenue	E
45	Rumble Road	Conant Avenue	Prescott Road	E
46	Rumble Road	Napier Drive	Sherwood Avenue	E
47	Scenic Drive	Downey Avenue	Oakdale Road	E/F
48	Scenic Drive	Sonoma Avenue	Lillian Drive	E/F
49	Sisk Road	Conant Avenue	Briggsmore Avenue	E
50	Sisk Road	Pirrone Road	Kiernan Avenue	F
51	Standiford Avenue	Sisk Road	Conant Avenue	E/F
52	Standiford Avenue	Longbridge Drive	Colonial Drive	E
53	Standiford Avenue	Sherwood Avenue	McHenry Avenue	E

Table A-1 Roadway Segments with 2005 PM Peak Hour Level of Service E or F (On Arterial Streets and Above)				
	Roadway Segment	From	To	LOS
54	Sunrise Avenue	Briggsmore Avenue	Granger Avenue	F
55	Sylvan Avenue	Bridgeford Lane	Claremont Avenue	E
56	Sylvan Avenue	Coffee Road	Palmwood Drive	E
57	Tully Road	Claratina Avenue	Snyder Avenue	E
58	Vintage Drive	Sisk Road	Gagos Drive	F
59	Whitmore Avenue	Crows Landing Road	Morgan Road	F
60	Woodland Avenue	Carpenter Road	9th Street	E/F
61	Yosemite Boulevard	Morton Boulevard	Santa Cruz Avenue	E/F
62	Yosemite Boulevard	Capistrano Drive	Mariposa Road	E/F
63	Yosemite Boulevard	Norseman Drive	Root Road	F
64	SR 99 Southbound	Hammett Road	Broadway Avenue	E
65	SR 99 Southbound	Beckwith Road	Carpenter Road	F
66	SR 99 Southbound	Kansas Avenue	H Street	E
67	SR 99 Southbound	H Street	Crows Landing Road	F
68	SR 99 Southbound	Crows Landing Road	9th Street	E
Source: Transportation Planning Partnership Group (TPPG) Countywide Travel Demand Model, 2007.				

Table A-2 Roadway Segments with 2025 PM Peak Hour Level of Service E or F (On Arterial Streets and Above)				
	Roadway Segment	From	To	LOS
1	7th Street	Tuolumne Boulevard	Crows Landing Road	F
2	9th Street	SR 99	Needham Avenue	E/F
3	Bangs Avenue	Dale Road	McHenry Avenue	F
4	Beckwith Road	Finney Road	SR 99	E/F
5	Bodem Street	Morris Avenue	Scenic Drive	F
6	Briggs Avenue	Seybold Avenue	Martin Luther King Drive	E
7	Briggsmore Avenue	SR 99	Carver Road	F
8	Briggsmore Avenue	College Avenue	Sherwood Avenue	E
9	Briggsmore Avenue	Sunrise Avenue	Lakewood Avenue	E/F
10	Briggsmore Avenue	Claus Road	Held Drive	E
11	Brighton Avenue	Coffee Road	Wylie Drive	E/F
12	Brink Avenue	Beckwith Road	Morse Road	F
13	Brink Avenue	Shoemaker Avenue	Carpenter Road	F
14	Buena Vista Drive	La Loma Avenue	Encina Avenue	F
15	California Avenue	Panama Drive	Spencer Avenue	E
16	Carpenter Road	SR 99	Paradise Road	F
17	Carpenter Road	Robertson Road	Whitmore Avenue	F
18	Carver Road	Kiernan	9th Street	F
19	Celeste Drive	Coffee Road	Oakdale Road	E/F
20	Chicago Avenue	Harris Avenue	Paradise Road	F
21	Church Street	Garst Road	Yosemite Boulevard	F
22	Claremont Avenue	Dragoo Park Drive	Rumble Road	F
23	Claus Road	Sylvan Avenue	Yosemite Boulevard	E/F
24	Coffee Road	Claratina Avenue	Mable Avenue	E
25	Coffee Road	Sylvan Avenue	Morris Avenue	E/F
26	Coldwell Avenue	9th Street	Tully Road	F
27	College Avenue	Rumble Road	Bowen Avenue	F
28	College Avenue	Stoddard Avenue	Needham Avenue	F
29	College Avenue	Briggsmore Avenue	Roseburg Avenue	E/F
30	Conant Avenue	Standiford Avenue	Sisk Road	F
31	Crows Landing Road	7th Street	Butte Avenue	E/F
32	Dakota Avenue	Beckwith Road	North Avenue	E
33	Dale Road	Ladd Road	New Roadway north of	E

Table A-2
Roadway Segments with 2025 PM Peak Hour Level of Service E or F
(On Arterial Streets and Above)

	Roadway Segment	From	To	LOS
			Kiernan Avenue	
34	Dale Road	Pelandale Avenue	Standiford Avenue	E/F
35	Dallas Street	Hatch Road	Butte Avenue	E
36	Edgebrook Drive	El Vista Avenue	Riverside Drive	F
37	El Pasado Drive	Riverside Drive	Capistrano Drive	E
38	El Vecino Avenue	Orangeburg Avenue	Fairmont Avenue	E
39	El Vista Avenue	Scenic Drive	Encina Avenue	E/F
40	Emerald Avenue	Lone Palm Avenue	California Avenue	E/F
41	Encina Avenue	Buena Vista Drive	Conejo Avenue	E/F
42	Ensenada Drive	Vera Cruz Drive	Rose Avenue	F
43	Enslin Avenue	Orangeburg Avenue	Coldwell Avenue	F
44	Evergreen Avenue	Sisk Road	Carver Road	E
45	Fairmont Avenue	Sunrise Avenue	Coffee Road	F
46	Finney Road / Broadway Avenue	SR 99	Murphy Road	E/F
47	Floyd Avenue	McHenry Avenue	Vera Cruz Avenue	F
48	Floyd Avenue	Keller Street	Orchard Park Way	E/F
49	Floyd Avenue	Claus Road	Held Drive	F
50	Garner Road	Finch Road	Hatch Road	F
51	Garst Road	Claus Road	Norseman Drive	E
52	Granger Avenue	Enslin Avenue	Sherwood Avenue	E
53	Granger Avenue	Florida Avenue	Sunrise Avenue	F
54	Graphics Drive	Woodland Avenue	Kansas Avenue	F
55	Grecian Avenue	Dragoo Park Drive	Drakeshire Drive	F
56	Hahn Drive	Venemen Avenue	Standiford Avenue	F
57	Hammett Road	SR 99	Pirrone Road	F
58	Hatch Road	Dallas Street	Crows Landing Road	F
59	Held Drive	Floyd Avenue	Briggsmore Avenue	F
60	Houser Lane	Carpenter Road	Seybold Avenue	E
61	I Street	Washington Street	SR 99	F
62	Kansas Avenue	Carpenter Road	SR 99	F
63	Kearney Avenue	Orangeburg Avenue	Coldwell Avenue	F
64	Kiernan Avenue	SR 99	Stoddard Road	F
65	Kiernan Avenue / Claribel Road	Chapman Road	Santa Fe Avenue	E/F
66	La Force Drive	Oakdale Road	Hillglen Avenue	E
67	La Loma Avenue	Morton Boulevard	Yosemite Boulevard	E
68	Lancey Drive	Rose Avenue	Oakdale Road	E/F
69	Locke Road	Coffee Road	Rose Avenue	F
70	Lucern Avenue	McHenry Avenue	Brighton Avenue	F
71	Mable Avenue	Palmwood Drive	Oakdale Road	E
72	Manor Oak Drive	Orchard Park Way	Lincoln Oak Drive	F
73	Martin Luther King Drive	California Avenue	Paradise Road	F
74	Maze Boulevard	Carpenter Road	Washington Street	E/F
75	McHenry Avenue	Kiernan Avenue	Needham Avenue	E/F
76	Merle Avenue	Oakdale Road	Walnut Tree Drive	F
77	Miller Avenue	Covena Avenue	El Vista Avenue	F
78	Mitchell Road	Yosemite Boulevard	Tanaya Drive	E
79	Mitchell Road	Riverside Drive	Hatch Road	F
80	Monticello Lane	Hatch Road	Salazar Circle	F
81	Morgan Road	Hatch Road	Nelson Way	E
82	Morris Avenue	McHenry Avenue	Coffee Road	F
83	North Avenue	Dakota Avenue	Morse Road	E
84	Norwegian Avenue	McHenry Avenue	Coffee Road	F
85	Oakdale Road	Claratina Avenue	Scenic Drive	E/F
86	Orangeburg Avenue	Briggsmore Avenue	Carver Road	F
87	Orangeburg Avenue	Enslin Avenue	Florida Avenue	E

Table A-2
Roadway Segments with 2025 PM Peak Hour Level of Service E or F
(On Arterial Streets and Above)

	Roadway Segment	From	To	LOS
88	Orangeburg Avenue	McHenry Avenue	Eastridge Drive	F
89	Orangeburg Avenue	Lakewood Drive	Lillian Avenue	F
90	Orangeburg Avenue	Glenbrook Way	Claus Road	F
91	Oregon Drive	Santa Rosa Avenue	Santa Cruz Avenue	E
92	Paradise Road / H Street	Pine Tree Lane	3rd Street	F
93	Pecos Avenue	Crows Landing Road	Boulder Avenue	E
94	Pelandale Avenue	Sisk Road	Dale Road	F
95	Pelandale Avenue / Claratina Avenue	Prescott Road	Santa Fe Avenue	E/F
96	Peppermint Drive	Oakdale Road	McGuire Drive	E
97	Pine Tree Lane	Paradise Road	Robertson Road	E
98	Poust Road	McDonald Avenue	Chapparral Place	F
99	Prescott Road	Pelandale Avenue	Cheyenne Way	E/F
100	Prescott Road	Mount Vernon Drive	Briggsmore Avenue	F
101	Riverside Drive	Encina Avenue	Miller Avenue	F
102	Riverside Drive	Yosemite Boulevard	Mitchell Road	F
103	Robertson Road	Carpenter Road	Pine Tree Lane	F
104	Rose Avenue	Floyd Avenue	Scenic Drive	E/F
105	Roselle Avenue / Lakewood Avenue	Floyd Avenue	Scenic Drive	E/F
106	Rosemore Avenue	Chapparral Place	Kansas Avenue	E/F
107	Rumble Road	Sisk Road	Hahn Drive	E
108	Rumble Road	Conant Avenue	Tully Road	E/F
109	Rumble Road	Napier Drive	Hashem Drive	E/F
110	Salida Boulevard	Pelandale Avenue	Dakota Avenue	F
111	Santa Rosa Avenue	Yosemite Boulevard	Oregon Drive	F
112	Scenic Drive	Downey Avenue	Lakewood Avenue	E/F
113	Seybold Avenue	Houser Lane	Briggs Avenue	E
114	Sherwood Avenue	Standiford Avenue	Leveland Avenue	E/F
115	Sherwood Avenue	Granger Avenue	Orangeburg Avenue	F
116	Sisk Road	Vintage Drive	Briggsmore Avenue	E/F
117	Sisk Road	Pirrone Road	Kiernan Avenue	F
118	Snyder Avenue	Dale Road	Viader Drive	E
119	Standiford Avenue	SR 99	Prescott Road	E/F
120	Standiford Avenue	Shawnee Drive	Carver Road	E
121	Standiford Avenue	Longbridge Drive	Colonial Drive	E
122	Standiford Avenue	Sherwood Avenue	McHenry Avenue	E
123	Stoddard Avenue	Tully Road	Sycamore Avenue	E/F
124	Stoddard Road	Ladd Road	Kiernan Avenue	F
125	Sunrise Avenue	Floyd Avenue	Lucern Avenue	E/F
126	Sycamore Avenue	Orangeburg Avenue	Needham Avenue	E/F
127	Sylvan Avenue	Bridgeford Lane	Oakdale Road	E/F
128	Sylvan Meadows Drive	Coffee Road	Forest Glenn Drive	F
129	Tenaya Drive	Conejo Avenue	Mitchell Road	F
130	Tokay Avenue	McHenry Avenue	Sunrise Avenue	E
131	Tully Road	Bangs Avenue	Orangeburg Avenue	E/F
132	Tuolumne Boulevard	Colorado Avenue	Roselawn Avenue	E
133	Tuolumne Boulevard	Neece Drive	SR 99	E
134	Ustick Road	Hatch Road	Boise Avenue	E
135	Veneman Avenue	Dale Road	Hahn Drive	F
136	Vintage Drive	Sisk Road	Dale Road	E/F
137	Washington Street	Maze Boulevard	I Street / Vine Street	F
138	Woodland Avenue	Poust Road	9th Street	E/F
139	Woodrow Avenue	Colonial Drive	Sherwood Avenue	E
140	Wylie Drive	Brighton Avenue	Oakdale Road	F

Table A-2				
Roadway Segments with 2025 PM Peak Hour Level of Service E or F (On Arterial Streets and Above)				
Roadway Segment		From	To	LOS
141	Yosemite Boulevard	D Street	El Vista Avenue	E/F
142	Yosemite Boulevard	Riverside Drive	Santa Fe Avenue	E/F
143	New Roadway north of Kiernan Avenue	Dale Road	Prescott Road	E
144	New Roadway north of Kiernan Avenue	Carver Road	McHenry Avenue	E
145	SR 99 Northbound	Hammett Road	Kiernan Avenue	F
146	SR 99 Northbound	Kiernan Avenue	Pelandale Avenue	E
147	SR 99 Northbound	Beckwith Road	Tuolumne Boulevard	E
148	SR 99 Southbound	Hammett Road	Broadway Avenue	E
149	SR 99 Southbound	Standiford Avenue	Crows Landing Road	F
150	SR 99 Southbound	Crows Landing Road	Hatch Road	E
151	SR 99 Southbound	Hatch Road	Whitmore Avenue	F
Source: Transportation Planning Partnership Group (TPPG) Countywide Travel Demand Model, 2007.				

**Appendix B. Air Quality Technical Information: Carbon
Monoxide Modeling**

APPENDIX B. AIR QUALITY TECHNICAL INFORMATION

Carbon Monoxide Modeling

Dispersion Modeling

Predicting the ambient air quality impacts of pollutant emissions requires an assessment of the transport, dispersion, chemical transformation, and removal processes that affect pollutant emissions after their release from a source. Gaussian dispersion models are frequently used for such analyses. The term "Gaussian dispersion" refers to a general type of mathematical equation used to describe the horizontal and vertical distribution of pollutants downwind from an emission source.

Gaussian dispersion models treat pollutant emissions as being carried downwind in a defined plume, subject to horizontal and vertical mixing with the surrounding atmosphere. The plume spreads horizontally and vertically with a reduction in pollutant concentrations as it travels downwind. Mixing with the surrounding atmosphere is greatest at the edge of the plume, resulting in lower pollutant concentrations outward (horizontally and vertically) from the center of the plume. This decrease in concentration outward from the center of the plume is treated as following a Gaussian ("normal") statistical distribution. Horizontal and vertical mixing generally occur at different rates. Because turbulent motions in the atmosphere occur on a variety of spatial and time scales, vertical and horizontal mixing also vary with distance downwind from the emission source.

The CALINE4 Model

The ambient air quality effects of traffic emissions were evaluated using the CALINE4 dispersion model (Benson 1989). CALINE4 is a Gaussian dispersion model specifically designed to evaluate air quality impacts of roadway projects. Each roadway link analyzed in the model is treated as a sequence of short segments. Each segment of a roadway link is treated as a separate emission source producing a plume of pollutants which disperses downwind. Pollutant concentrations at any specific location are calculated using the total contribution from overlapping pollution plumes originating from the sequence of roadway segments.

When winds are essentially parallel to a roadway link, pollution plumes from all roadway segments overlap. This produces high concentrations near the roadway (near the center of the overlapping pollution plumes), and low concentrations well away from the roadway (at the edges of the overlapping pollution plumes). When winds are at an angle to the roadway link, pollution plumes from distant roadway segments make essentially no contribution to the pollution concentration observed at a receptor location. Under such cross-wind situations, pollutant concentrations near the highway are lower than under parallel wind conditions (fewer overlapping plume contributions), while pollutant concentrations away from the highway may be greater than would occur with parallel winds (near the center of at least some pollution plumes).

The CALINE4 model employs a "mixing cell" approach to estimating pollutant concentrations over the roadway itself. The size of the mixing cell over each roadway segment is based on the width of the traffic lanes of the highway (generally 12 feet per lane) plus an additional turbulence zone on either side (generally 10 feet on each side). Parking lanes and roadway shoulders are not counted as traffic lanes. The height of the mixing cell is calculated by the model.

Pollutants emitted along a highway link are treated as being well mixed within the mixing cell volume due to mechanical turbulence from moving vehicles and convective mixing due to the temperature of vehicle exhaust gases. Pollutant concentrations downwind from the mixing cell are calculated using horizontal and vertical dispersion rates which are a function of various meteorological and ground surface conditions.

Modeling Procedures

Roadway and Traffic Conditions. Traffic volumes and operating conditions used in the modeling were obtained from the traffic analysis prepared for this project by Fehr and Peers. CO emissions were modeled for existing year (2005), and future year (2025) with project conditions. Free flow traffic speeds were adjusted to reflect congested speeds using methodology from the Highway Capacity Manual (Transportation Research Board 2000). CO modeling was conducted at Kansas Avenue – Carepenter Road to 10th Avenue, Bangs Avenue – Tully Road to McHenry Avenue, Kansas Avenue West of SR102 and Woodland – Carpenter Road to Kearney Avenue segments, as they represent roadways with the worst volume to capacity (V/C) ratios of any roadways analyzed in the project area.

Vehicle Emission Rates. Vehicle emission rates were determined using the California Air Resources Board's EMFAC2002 (version 2.2) emission rate program. EMFAC2002 modeling procedures followed the guidelines recommended by Caltrans (California Department of Transportation 2003). The program assumed Amador County regional traffic data, operating during the winter months. A mean January temperature of 33 degrees Fahrenheit and humidity of 30% were assumed.

Receptor Locations. CO concentrations were estimated for receptors placed 22 feet away from the centerline of each roadway, and located 2,000 feet from each other to represent a worst case scenario. Receptor heights were set at 5.9 feet.

Meteorological Conditions. Meteorological inputs to the CALINE4 model were determined using methodology recommended in Air Quality Technical Analysis Notes (California Department of Transportation 1988). The meteorological conditions used in the modeling represent a calm winter period. Worst-case wind angles were modeled to determine a worst-case concentration for each receptor. The meteorological inputs include: 0.5 meters per second wind speed, ground-level temperature inversion (atmospheric stability class G), worse case wind direction, ambient temperature of 0.6 degrees centigrade, altitude equivalent to sea level, and a mixing height of 1,000 meters.

Background Concentrations and Eight-Hour Values. To account for sources of CO not included in the modeling, a background concentration of 5.0 ppm was added to the modeled cumulative 1-hour values, while a background concentration of 3.2 ppm was added to the modeled cumulative 8-hour values. Background concentration data for 1- and 8-hour values were obtained from the EPA's Air Data webpage (U.S. Environmental Protection Agency 2006). Maximum 1- and 8-hour values for the years 2003-2005 were averaged to obtain a background concentration. Eight-hour modeled values were calculated from the 1-hour values using a persistence factor of 0.6. Background concentrations for future 2025 year was assumed to be the same as those for the current year. Actual 1- and 8-hour background concentrations in future years would likely be lower than those used in the CO modeling analysis because the trend in CO emissions and concentrations is decreasing because of continuing improvements in engine technology and the retirement of older, higher-emitting vehicles.

References

- Benson, P. E. 1989. CALINE4---a dispersion model for predicting air pollution concentrations near roadways. California Department of Transportation. Sacramento, CA.
- California Department of Transportation. 1988. Air Quality Technical Analysis Notes. Sacramento, CA.
- California Department of Transportation. 2003. Draft Use of EMFAC 2002 to Replace CT-EMFAC: A Users Guide. February 27
- Transportation Research Board. 2000. Highway Capacity Manual. Washington, D.C.
- U.S. Environmental Protection Agency. 2006. Air Data. Last Revised: April 3, 2006. Available: <<http://www.epa.gov/air/data/reports.html>>. Accessed: June 11, 2006.

Appendix C. Air Quality Technical Information: Criteria
Pollutants Modeling

APPENDIX C. AIR QUALITY TECHNICAL INFORMATION

Criteria Pollutants Modeling

Emissions of Criteria Pollutants

The primary operational emissions associated with the proposed project are CO, PM10, and ozone precursors (ROG and NO_x) emitted as vehicle exhaust. The effects of project specific emissions of criteria pollutants (CO, PM10 and ozone precursors) were evaluated through the modeling conducted using the ARB's EMFAC2007 (version 2.3) emission rate program and traffic data provided by the project traffic engineers.

The EMFAC2003 (version 2.3) Model

Emissions of criteria pollutants (CO, PM10 and ozone precursors) were evaluated using the ARB's EMFAC2003 (version 2.3) emission rate program and vehicle activity data. The Emission FACTors (EMFAC) model calculates emission rates from all motor vehicles, such as passenger cars to heavy-duty trucks, operating on highways, freeways and local roads in California. It can estimate emission rates of 1965 and newer vehicles, and provides emission rates for gasoline, diesel or electricity powered vehicles. The EMFAC2007 emissions inventory estimates are made for over one hundred different technology groups and are reported for ten broad vehicle classes segregated by usage and weight.

Emission inventories associated with the proposed project are estimated by applying emission rate data from EMFAC2007 model to vehicle activity data. EMFAC2007 can analyze up to 45 model years for each vehicle class within each calendar year; for 24 hourly periods; for each month of the year; and for each district, basin, county and subcounty in California. EMFAC2007 estimates emission factors and emission inventories for the following primary pollutants:

- **Hydrocarbons.** Hydrocarbons can be expressed as TOG (total organic gases), ROG (reactive organic gases), THC (total hydrocarbon), or CH₄ (methane). The THC class includes compounds with hydrogen and carbon atoms only; carbonyls and halogens are not included in the class. The TOG class includes all organic gases emitted into the atmosphere. The ROG class is same as EPA's VOC (volatile organic compounds) definition and does not contain compounds exempt from regulation.
- **Carbon monoxide (CO).**
- **Nitrogen oxides (NO_x).**
- **Carbon dioxide (CO₂).**
- **Particulate matter (PM).** PM estimates are provided for total suspended particulate, particulate matter 10 microns or less in diameter (PM10), and particulate matter 2.5 microns or less in diameter (PM2.5).
- **Fuel consumption.** Although this is not a pollutant, fuel consumption is calculated based on the emissions of CO, CO₂ and THC using the carbon balance equation.

- **Oxides of sulfur (SO_x).** Emissions of oxides of sulfur are a function of the sulfur content of fuel. The model calculates these emissions by multiplying the fuel consumption by the weight fraction of sulfur in a gallon of fuel.
- **Lead (Pb).** Lead emissions are also a function of the lead content in fuel. Hence, the model calculates lead by multiplying the fuel consumption by the number of grams of lead per gallon.

Modeling Procedures

Roadway and Traffic Conditions. Modeled traffic volumes and operating conditions were obtained from the traffic data prepared by the project traffic engineers, Fehr & Peers. Emissions of ozone precursors (ROG and NO_x), CO, and PM₁₀ for were modeled for two conditions: existing year (2005) and 2025. Traffic data used in the model included peak hour vehicle miles traveled (VMT) and average speed. The data used for emissions modeling is summarized in Table 1.

Table 1. Traffic Inputs for EMFAC2007 Modeling

Scenario	Daily Performance Measure		Average Speed
	VMT	VHT	
Existing (2005)	6,835,210	173,647	39 miles per hour
Future (2025) With General Plan and Planned Roadway Network	12,447,000	361,800	34 miles per hour

Vehicle Emission Rates. Vehicle emission rates were determined using the ARB's EMFAC2007 (version 2.3) emission rate program. Free flow traffic speeds for selected roadway segments were adjusted to reflect congested speeds using methodology from the Highway Capacity Manual (Transportation Research Board 2000). The program assumed Stanislaus County regional traffic data, averaged for a range of roadway segments, operating during the winter months for CO and summer for ozone precursors and PM₁₀, as CO concentrations are typically higher during the colder winter months, and ozone concentrations are typically higher during the warmer summer months. A mean Annual temperature of 67 degrees Fahrenheit, and humidity of 30% were assumed.

References

Transportation Research Board. 2000. Highway Capacity Manual. Washington, D.C.

Appendix D. Modesto Wastewater Master Plan Update Draft
Environmental Impact Report Executive Summary

II. SUMMARY

A. OVERVIEW OF THE PROPOSED PROJECT

PURPOSE

The City of Modesto faces a number of challenges regarding its current wastewater collection and treatment facilities. Depending on location, collection system capacities may be exceeded during heavy rain events. Portions of the Sutter Avenue Primary Treatment Plant ("Primary Plant") do not have sufficient hydraulic capacity to process peak wet weather flows. In addition, the City currently has limited options at its Jennings Road Secondary Treatment Plant ("Secondary Plant") for the discharge of its treated wastewater, also known as effluent. The City currently disposes of secondary treated effluent in two ways: through irrigation to land that it owns (the "Ranch"), and through seasonal discharge to the San Joaquin River. Both land and river discharge are constrained by permit and physical limitations; therefore, at times the City must store its treated effluent until discharge is possible.

To meet the challenges of population growth and limitations on conveyance and disposal; to meet expected, new, more restrictive permit conditions; and to improve reliability, the City proposes to construct substantial improvements to the wastewater collection and treatment system, and to increase wastewater rates and connection charges to pay for these improvements.

The "proposed project" analyzed by this Wastewater Master Plan Update Environmental Impact Report ("MEIR") is the program of facility improvements proposed in the Wastewater Master Plan, which would be funded by proposed increases in wastewater rates and charges.

The proposed project has three components, explained in greater detail below:

- Collection system improvements.
- Treatment plant improvements.
- Operation and maintenance of the existing and proposed wastewater facilities.

LOCATION

The City of Modesto is in Stanislaus County, California, in the central San Joaquin Valley. The wastewater collection system and Primary Plant improvements would be made within the City and its wastewater service area. The wastewater service area includes all of the incorporated City of Modesto, a portion of north Ceres, the unincorporated community of Empire, and unincorporated "islands" in the County within the City that are served by agreement. The Primary Plant is in the southwestern portion of the City adjacent to the north bank of the

Tuolumne River. The Secondary Plant is outside the City limits, and is located approximately 6.5 miles southwest of the City, on the east side of the San Joaquin River. A 60-inch Primary Effluent Outfall pipeline and a Cannery Segregation Line (Outfall) follow a generally diagonal route, carrying primary treated effluent and wastewater from wet industries between the Primary Plant and Secondary Plant.

COLLECTION SYSTEM IMPROVEMENTS

The proposed collection system improvements would be designed to meet several needs: additional capacity for new users, extensions to serve developing areas, compliance with new state-mandated discharge requirements, and rehabilitation of aging sewers.

Capacity would be improved by new and replacement pipes. These would be installed in various locations within the sewer service area.

Some trunk lines are in need of rehabilitation to avoid future failure. Rehabilitation options include placing a liner inside the pipe and coating the interior of the pipe.

Lift stations (or pump stations) are needed because Modesto is generally flat. Lift stations in various locations around the City lift wastewater so that gravity can carry it to the Primary Plant. The proposed project includes adding four new lift stations and upgrading several existing ones. The upgrades generally consist of replacing the existing pumps with larger-sized pumps, which in some cases could require enlarging the underground or aboveground lift station structure. Certain lift stations are in need of new or larger emergency generators, and about seven new generators are planned to be installed.

Another component of the City's collection system upgrade is to reduce the peak flows in the sanitary sewers by disconnecting up to 47 interconnections between the storm sewers and sanitary sewers. The disconnections would be made by installing storm water pipes and detention basins, and possibly other means.

The proposed collection facilities would be built under City streets, and crossing under developed and undeveloped land. Most pipeline construction would be performed by digging a trench, installing (or replacing) the pipe, and backfilling the trench ("cut-and-cover"). (Depending on location and soil conditions, other construction methods may be employed.) Because most of the pipe installation would be under City streets, the construction crews would close one or more lanes of traffic temporarily. On average, approximately 500 feet of trench would be open at any one construction site and a crew would complete approximately 100 to 200 feet of pipe per day.

Where new or replacement wastewater collection facilities would cross Dry Creek and the Tuolumne River, the City would use microtunneling or other methods of trenchless technology to reduce environmental impacts and disruption to the community.

TREATMENT PLANT MODIFICATIONS

Primary Plant

The Primary Plant does not have sufficient capacity for peak wet weather flows. To address this and related issues at the Primary Plant, the City proposes the following modifications.

The City proposes to expand the headworks capacity from 81 million gallons per day (“mgd”) to 95.5 mgd, and ultimately to 108 mgd. This would include five main improvements: modifications to influent flowmeters, a new pump at the influent pump station, an additional bar screen, a new grit removal mechanism, and a new Effluent Pump Station.

The City also proposes to expand and improve solids processing in several ways. A new anaerobic digester would be added, including a small pump and blower building. The City would install mechanical dewatering (belt filter presses or centrifuges) to reduce the amount of biosolids that would be dried in the sludge drying beds. With mechanical dewatering, a much smaller area would be needed for drying biosolids. The sludge drying beds would be lined with soil-cement or fiber-reinforced concrete to prevent wastewater (called subnatant) from leaching into the soil under the beds. A subnatant drainage system would be installed.

Because the Primary Plant lies within the 100-year flood plain, the City also proposes to install the several flood protection measures. The City would use earthen fill to build up the new sludge drying area and the land around most of the treatment works to an elevation of approximately 70 feet above sea level. In addition to the fill, concrete flood protection walls would be built around the primary clarifiers and near the existing anaerobic digesters.

The City also proposes to switch from natural gas to waste digester gas to heat the anaerobic digesters.

After processing at the Primary Plant, one or two pipelines (depending on need) convey the treated wastewater (called primary effluent) to the Secondary Plant. Portions of the existing 60-inch-diameter Primary Effluent Outfall are in need of rehabilitation. The City proposes to rehabilitate the outfall to increase its hydraulic capacity by lining it with an interior sleeve and pressurizing the flow. In addition, the City would continue to use the Cannery Segregation Line (the 60-inch-diameter outfall portion) as a second outfall pipeline during the wet weather season.

Secondary Plant

The challenge at the Secondary Plant is to increase treated effluent disposal capacity. First, the City plans to build “near-term facilities” to serve anticipated near-term growth. These near-term facilities include a 2.3-mgd “Phase 1A” tertiary treatment facility. The proposed improvements would be located in the City’s Ranch, just south of the southwestern portion of the Secondary Plant site, near the existing chlorination facilities.

To meet long-term demand, the proposed solution is to add certain tertiary treatment processes including biological nutrient removal (“BNR”) to increase pollutant removal to meet changing discharge requirements. BNR is a biological process that converts ammonia to nitrates and then nitrates to nitrogen gas, which it releases to the air. Assuming that the City can obtain approval from the Regional Water Quality Control Board - Central Valley Region (“RWQCB”), the City should be able to discharge this higher-quality effluent into the San Joaquin River year-round.

The City would build the tertiary treatment facilities in several phases, hypothetically called Phases 1A, 1B, 2, and 3, over the next 15 to 20 years. These phases would provide additional advanced treatment to meet future anticipated regulatory changes discharge requirements and accommodate projected growth anticipated by the City’s General Plan. Future phases could serve additional population growth within the City’s existing Sphere of Influence (“SOI”), as contemplated by the City’s General Plan.

The proposed tertiary treatment process starts with adding new aeration equipment to the existing recirculation channel to convert it to an extended-aeration basin. The basin would nitrify in different parts of the channel. Nitrification reduces ammonia compounds.

After nitrification/denitrification, the next step would be high-rate flocculation/sedimentation. During flocculation, polymers that attract dissolved pollutants are added, making settleable particles. These particles would settle and be removed (sedimentation process). This process could also reduce metals concentrations. In addition, the City is considering using microfiltration in lieu of high-rate flocculation / sedimentation and clarifiers.

The flow would proceed through filters, which would remove smaller particles. The proposed project would use media filtration, i.e., sand or cloth filters.

The next step would be disinfection to kill pathogenic (disease-causing) organisms. The City plans to discontinue the use of chlorine gas and sulfur dioxide at the Secondary Treatment Plant by switching to sodium hypochlorite for disinfection of secondary-treated effluent and sodium bisulfite for dechlorination, and to ultraviolet light for disinfection of tertiary-treated effluent. Sodium hypochlorite is similar to a strong household bleach. The change in disinfection methods is expected to occur by 2011 when the Phase 1A facilities begin operation and would reduce the

amount of chlorine compounds needed. As subsequent phases of tertiary facilities come "on-line," they would also use ultraviolet light disinfection prior to discharge of treated effluent to the San Joaquin River, and the use of sodium hypochlorite and sodium bisulfite would be discontinued. After a post-aeration process, the tertiary effluent would be discharged to the San Joaquin River.

After separation and belt-pressing of solids (to reduce water content), the solids would be dried on sludge drying beds. These new beds would be created on agricultural land just south of the area currently used for composting landscaping waste. After drying, the solids would be spread on the City's Ranch.

The City also plans other improvements at the Secondary Plant. The outfall pipeline from the Secondary Pipeline to the San Joaquin River would be replaced. The City may also add a diffuser in the river bed. Finally, the City would repair portions of the flood control levees around the Secondary Plant, where "sand boils" (small levee failures) have occurred.

Construction of the tertiary facilities would take place entirely within the Secondary Plant site and Ranch.

B. ENVIRONMENTAL EFFECTS FOUND TO BE LESS THAN SIGNIFICANT

A Notice of Preparation for the proposed project was published on May 8, 2006. A full copy of the NOP can be found in Appendix B. The City of Modesto determined that an environmental impact report (EIR) was required. No Initial Study was prepared.

The EIR determined that the effects of the project in the following issue areas would either be insignificant or would be reduced to a less-than-significant level by mitigation measures or aspects included in the project: community services (police, fire, schools, solid waste), cultural resources (historical architectural and archeological), geology (including soils, mineral resources, geologic hazards, and seismic hazards), water supply, and population and housing. These issues are addressed in Section IV.L., Effects Found Not to Be Significant.

As shown in Table II.1, a number of project impacts identified in the remainder of Chapter IV of the EIR were found to be less than significant, needing no mitigation. These impacts are listed below and are discussed in this document.

- Create land use compatibility conflicts in the vicinity of established or planned land uses with improvements to the wastewater collection system.
- Conflict with land use plans and policies during construction near the banks of the Tuolumne River and Dry Creek.

- Create land use compatibility conflicts with established or planned land uses adjacent to the Primary Plant.
- Result in land use compatibility conflicts in the vicinity of the Secondary Plant.
- Conflict with land use plans and policies as a result of improvements to the collection and treatment system.
- Result in the direct loss of Prime Farmland.
- Result in a temporary increase in localized noise and dust, and temporarily impair access and enjoyment of Beard Brook Park during construction.
- Result in a temporary increase in localized noise and dust, and temporarily impair enjoyment of the Dryden Municipal Golf Course during construction.
- Result in a temporary increase in localized noise and dust and temporarily impair access and enjoyment of a neighborhood park at the corner of West Hatch Road and Rancho Encantado Lane.
- Result in operation-period surface water quality degradation due to pollutant loading associated with treated wastewater discharges and storm water discharges.
- Affect regional groundwater quality as a result of additional application of treated wastewater and biosolids to land.
- Result in depletion of groundwater resources.
- Affect the habitat for Western Pond Turtles, the nesting and foraging habitat for Loggerhead Shrikes, and foraging habitat for Short-eared Owls, Northern Harriers, and Tricolored Blackbirds.
- Affect the spawning habitat or affect the health of the Sacramento Splittail.
- Result in temporary reductions in roadway capacity and temporary traffic delays when construction is taking place in a roadway right-of-way and from construction-related truck trips.
- Expose sensitive receptors to toxic air contaminants from emissions during project operation.
- Cause emissions of objectionable odors during project operation.
- Result in noise from operation of new stationary equipment at the Primary and Secondary Plants.
- Result in increased noise from additional vehicle trips by Public Works Department employees.
- Change visual quality at locations with proposed above-ground structures associated with wastewater collection.
- Change visual quality near the Primary and Secondary Plants with proposed new above-ground structures and alterations to existing above-ground structures.
- Cause potential hazards to the public and the environment from hazardous materials use, storage, and transportation during construction.

- Cause potential hazards to the public and the environment from hazardous materials use, storage, and transportation during operation.
- Expose workers and the public to accidental release of toxic gases from increased use of chlorine and sulfur dioxide at the Secondary Plant.
- Result in an increased volume of hazardous wastes generated by construction and operation of the wastewater collection and treatment facilities.
- Result in increased use and transport of hazardous materials and hazardous wastes within California.

C. ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA and the CEQA Guidelines, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the areas affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. Significance criteria are based on standards identified in CEQA, the CEQA Guidelines, City and policies or regulations of agencies with jurisdiction over the proposed project, and/or professional judgment. Implementation of the proposed project would result in potentially significant impacts on some of these resources. These impacts are listed in Table II.1.

The EIR discusses mitigation measures that could be implemented by the City and/or project sponsors to reduce significant impacts to a less-than-significant level. Such mitigation measures are noted in this report and are found in Chapter IV, Environmental Setting, Impacts and Mitigation.

D. PROJECT ALTERNATIVES

The following alternatives to the proposed project are analyzed in this EIR:

- Alternative A: No Project Alternative. The No Project Alternative assumes no implementation of the 2006 Wastewater Master Plan update and no adoption of increased wastewater rates or collection charges to fund the associated infrastructure. The collection system improvements and treatment plant improvements would not be constructed.
- Alternative B: Alternate Location for Phase 1A Tertiary Facilities. The proposed site of the Phase 1A tertiary facilities at the Secondary Plant is south of the chlorination channel on agricultural land. Rather than displace agricultural land, Alternative B would build the Phase 1A tertiary facilities north of the chlorination channel, within the treatment plant.
- Alternative C: Reduced Size Alternative for Tertiary Treatment. Rather than build tertiary treatment capacity sufficient to accommodate both the existing population and population growth, Alternative C would build only tertiary treatment capacity sufficient to serve the existing population. The City would not build the “near-term” Phase 1A

tertiary facilities, nor Phase 1B. The City would proceed immediately to build Phase 2 of the tertiary facilities (20 mgd), which would provide tertiary facilities for the existing population. The City expects that the Regional Water Quality Control will eventually require the City to provide tertiary treatment; therefore, Alternative D would meet that expected requirement. The City would not build Phase 3 of the tertiary facilities. This alternative would address the growth inducement impact identified in Chapter V, Section A.

- **Alternative D: Build Certain Primary Treatment Facilities at the Secondary Plant.** To address the flood hazard at the Primary Plant, Alternative D would move some of the primary treatment facilities to the Secondary Plant. The existing Primary Plant site would still contain the headworks, pump stations, and portions of the outfall pipelines to convey the wastewater flow to the Secondary Plant.
- **Alternative E: Build Flood Protection Levee at Primary Plant.** To address the potential flood risk at the Primary Plant, Alternative E would construct a flood protection levee around the entire Primary Plant. The levee would be an earthen berm on the west, north, and east sides. On the south side, adjacent to the Tuolumne River, it would be a concrete wall.

E. POTENTIAL AREAS OF CONCERN OR UNRESOLVED ISSUES

Section 15123 of the CEQA Guidelines requires the agency preparing an EIR to disclose any areas of controversy about the project that became known to it during the preparation of the EIR. One area of possible controversy is the potential loss of agricultural land. Comments received during the public scoping period were exclusively from other public agencies and did not raise any major areas of concern or unresolved issues; they were mainly directed at informing the City about requirements for constructing near levees and in the vicinity of irrigation and electrical facilities.

F. SUMMARY TABLE

Table II-1, Summary of Impacts and Mitigation Measures, summarizes the analyses contained in Chapter IV. Environmental impacts and their degree of significance are listed, followed by mitigation measures identified in this EIR and the level of significance after mitigation.

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
A. Land Use, Plans and Policies				
A.1	Proposed improvements to the wastewater collection system in the vicinity of established or planned land uses could create land use compatibility conflicts.	LS	No mitigation necessary	LS
A.2	The proposed project includes the construction and/or rehabilitation of portions of sewer lines under the watercourses or near the banks of the Tuolumne River and Dry Creek that could conflict with land use plans and policies.	LS	No mitigation necessary	LS
A.3	Proposed improvements to the Primary Plant in the vicinity of established or planned land uses could create land use compatibility conflicts.	LS	No mitigation necessary	LS
A.4	Proposed improvements to the Secondary Plant and Ranch could result in land use compatibility conflicts.	LS	No mitigation necessary	LS
A.5	Proposed improvements to the wastewater collection and treatment system could conflict with applicable land use plans and policies.	LS	No mitigation necessary	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>Stanislaus County would serve to compensate for the loss of Prime Farmland directly resulting from the proposed project. However, preservation of Prime Farmland through agricultural easements on other Prime Farmland parcels would not mitigate the direct loss of Prime Farmland resulting from the proposed project to a less-than-significant level.</p> <p>Restoration and/or recovery of Prime Farmland from existing urban uses to offset the loss of Prime Farmland would mitigate the loss caused by the proposed project. However, such a measure would be unreasonably costly and inefficient and would, therefore, be infeasible. Therefore, this impact would remain significant and unavoidable.</p>	
B.3	<p>Construction of the proposed project components within the Planned Urbanizing Area would result in the cumulative loss of Prime Farmland.</p> <p>(cont'd.)</p>	SU	<p>B.3. Each development project's contribution to the cumulative loss of farmland in Stanislaus County could be partially mitigated through contribution to the Farmland Conservancy Fund or an equivalent farmland preservation program, as a condition precedent to the issuance of building permits for projects within the City's Planned Urbanizing Area.</p> <p>Contribution to the California Farmland Conservancy fund, or an equivalent program, to fund farmland preservation projects in Stanislaus County would serve to compensate for the cumulative loss of Prime Farmland resulting from the expansion of the wastewater collection and treatment system. However, preservation of Prime Farmland through agricultural easements on other Prime Farmland parcels would not mitigate the cumulative loss of Prime Farmland resulting from the proposed project to a less-than-significant level.</p> <p>Furthermore, consistency with LAFCO and City policies that</p>	SU

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures				
Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		promote the planned, orderly, and efficient development of the City's Planned Urbanizing Area does not avoid impacts on agricultural land conversion. Therefore, this impact would continue to be significant and unavoidable.	
C. Parks and Recreation				
C.1	The Beard Brook Reliability project could result in an increase in localized noise and dust, and restrict access and enjoyment of Beard Brook Park.	LS	No mitigation necessary	LS
C.2	Construction of a pipeline near the Dryden Municipal Golf Course could result in an increase in localized noise and dust levels impairing enjoyment of this recreational facility.	LS	No mitigation necessary	LS
C.3	The rehabilitation of the Primary Effluent Outfall could result in a temporary increase in localized noise and dust, and could temporarily impair access and enjoyment of a park facility at the southwest corner of West Hatch Road and Rancho Encantado Lane.	LS	No mitigation necessary	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
D. Water Quality and Hydrology				
D.1	Excavation and construction activities could cause erosion and/or result in chemical releases causing degradation of water quality in nearby surface water and/or groundwater bodies.	S	<p>D.1. The City shall prepare a SWPPP designed to reduce potential impacts to surface water quality through the construction period of all of the project components (whether or not the particular portion of the project disturbs more than one acre). The SWPPP shall emphasize measures designed to minimize erosion and off-site sedimentation during improvements to the collection system and installation of the new outfall.</p> <p>It is not required that the SWPPP be submitted to the RWQCB, but must be maintained on-site and made available to RWQCB staff upon request. The SWPPP shall include:</p> <ul style="list-style-type: none"> • Specific and detailed BMPs designed to mitigate construction-related pollutants. At a minimum, BMPs shall include practices to minimize the contact of construction materials, equipment, and maintenance supplies (e.g., fuels, lubricants, paints, solvents, adhesives) with storm water. The SWPPP shall specify properly designed, centralized storage areas that keep these materials out of the rain. • To educate on-site personnel and maintain awareness of the importance of storm water quality protection, site supervisors shall conduct regular tailgate meetings to discuss pollution prevention. The frequency of the meetings and required personnel attendance list shall be specified in the SWPPP. • A monitoring program that would be implemented by the construction site supervisor which will include both dry and wet weather inspections. In addition, in accordance with State Water Resources Control Board Resolution No. 2001-046, monitoring would be required during the construction period for pollutants that may be present in the runoff that are "not visually detectable" 	LS

(cont'd.)

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)			in runoff.”	
			<ul style="list-style-type: none"> • BMPs designed to reduce erosion of exposed soil may include, but are not limited to soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. Efforts should be made to keep the length of open trench and stockpile volumes to a minimum. The potential for erosion is generally increased if grading is performed during the rainy season as disturbed soil can be exposed to rainfall and storm runoff. If grading must be conducted during the rainy season, the primary BMPs selected shall focus on erosion control, that is, keeping sediment on the site. End-of-pipe sediment control measures (e.g., basins and traps) shall be used only as secondary measures. Entry and egress from the excavation area shall be carefully controlled to minimize off-site tracking of sediment. Vehicle and equipment wash-down facilities shall be designed to be accessible and functional during both dry and wet conditions. • A drainage plan shall be prepared for the proposed sludge drying area at the Secondary Plant which specifies that the working surface will be lined with a cement-soil or concrete (to minimize infiltration) and runoff from all portions of the sludge drying area will be contained and treated prior to discharge. Treatment can occur in an appropriately designed detention basin or by filtration. The drainage plan shall consider reuse of storm water for dust control. The drainage plan shall be reviewed and approved by the Department of Public Works prior to commencement of operations. • A monitoring and contingency plan for microtunneling that specifies how the likelihood of frac-out would be reduced and response actions should frac-out occur. The risk of frac-outs can 	

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>be reduced through proper design, careful monitoring, and having appropriate equipment and response plans ready in the event of a frac-out. The monitoring and contingency plan shall specify that:</p> <ul style="list-style-type: none"> On-site briefings be conducted for the workers to identify and locate sensitive resources at the site. All field personnel be fully briefed and understand their responsibility for timely reporting of frac-outs. When excavating around existing rock wells, the inlet to the rock well will be sealed during the excavation activity so that sediment and pollutants cannot be discharged into the rock well in runoff or wash water. Response equipment be maintained on-site or at a readily accessible location and in good working order. <p>Should a frac-out occur, the plan should specify that:</p> <ul style="list-style-type: none"> A qualified biologist would be retained to evaluate the potential for impacts to biotic resources and specify response actions, as appropriate. All work stops, including the recycling of drilling mud/lubricant. The location and extent of the frac-out is quickly determined. If the frac-out occurs on land that the drilling mud is removed, the area reseeded and/or replanted using species similar to those in the adjacent area. If the frac-out occurs underwater, the frac-out should be monitored for 4 hours to determine if the drilling mud congeals. (the bentonite clay typically used as a drilling mud will usually harden, effectively sealing the frac-out location). If drilling mud does not congeal, erect isolation/containment environment (underwater boom and curtain). If the fracture becomes excessively large, a spill response team be 	
	(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>called in to contain and clean up excess drilling mud in the water. Phone numbers of spill response teams in the area should be maintained on site.</p> <ul style="list-style-type: none"> In any case, if a frac-out occurs, consultation with the appropriate regulatory agencies should occur promptly. <p>The drilling and response plan shall be reviewed and approved by the City of Modesto Department of Public Works prior to implementation of the drilling activities.</p> <p>The City of Modesto Department of Public Works shall ensure that the SWPPP is prepared prior to approval of the grading plan for each development project or each phase of a large-phased development project.</p>	
D.2	<p>Elimination of the cross-connections between the storm water drainage system and the wastewater collections system could result in localized flooding.</p> <p>(cont'd.)</p>	S	<p>D.2. Each proposed cross-connection elimination project shall be carefully designed to ensure that existing flooding problems are not exacerbated. If the proposed solution (either temporary or permanent) is not fully compliant with the City standards for storm water conveyance, then it shall be demonstrated through detailed hydraulic analysis that the proposed solution does not make existing flooding problems worse. The designers of the new storm water conveyance and treatment structures should consider a wide range of solutions when designing the temporary and permanent solutions, including: 1) positive connections to existing trunk lines or MID laterals, 2) construction of new trunk lines and laterals, 3) detention and retention basins, 4) rock wells, and 5) onsite improvements to reduce discharge flows. Each proposed cross-connection elimination design shall be reviewed for compliance with this performance standard by the City Public Works Department prior to approval of</p>	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		the project.	
D.3	Implementation of the proposed project at a rate that does not match projected growth may result in an incremental increase in operation-period surface water quality degradation due to the deficient effluent disposal system.	SU	D.3 The City should continue to investigate the feasibility of near-term solutions: 1) additional land application of effluent, 2) expansion of storage capacity, and 3) conservation measures. However, under the existing conditions and with the project as proposed, the deficient effluent disposal system could result in significant water quality impacts and no feasible mitigation has currently been identified that could be implemented promptly. This impact is significant and unavoidable.	SU
D.4	Implementation of the proposed project may result in operation-period surface water quality degradation due to pollutant loading associated with treated wastewater discharges.	SU	D.4. To mitigate the potential impacts to San Joaquin water quality associated with the expansion of treated wastewater capacity, the City shall conduct an antidegradation study as set forth above. The study shall be conducted in accordance with all applicable State and Federal antidegradation policy standards. The City shall implement all feasible and necessary mitigation measures. Based on current RWQCB requirements, it is likely that the implementation of this mitigation measure will reduce operation-period surface water quality degradation due to pollutant loading associated with treated wastewater discharges to a less-than-significant level. The antidegradation study is a requirement of NPDES permit renewals when additional river discharge capacity is requested and will be defined based on the permit provisions. However, because several permit renewal cycles will occur over the course of the project horizon, the City cannot determine the future requirements at this time and therefore cannot assure that the potential impacts will be fully mitigated. In addition, it is possible that State and Federal antidegradation policies may change over time to a point where the potential impacts associated with a Project phase can no longer be fully mitigated.	SU

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
<p>D.5 Implementation of the proposed project may result in operation-period surface water quality degradation during daily operations and/or during flooding of the Primary Plant and sludge drying area.</p> <p><i>(cont'd.)</i></p>	SU	<p>D.5. Placement of fill and construction of flood walls in the sludge drying area and around the Primary Plant may substantially increase flooding hazards along the Tuolumne River. The Primary Plant (which would not move under the project) and the drying beds (which would be consolidated in the northern portion of the existing drying area) would remain within the FEMA-designated 100-year flood hazard zone.</p> <p>However, no floodplain studies have been conducted to determine how the proposed placement of fill and construction of flood walls, which represent substantial encroachments into the floodplain, would effect baseflood elevations and upstream and downstream flooding. The Modesto Wastewater Master Plan states that “the implementation of a flood control project at Sutter Avenue must be based on detailed hydraulic and flood studies to determine possible upstream and downstream related impacts of the levee. These studies may be substantial, and may indicate the need for additional improvements.”</p> <p>Title 9, Chapter 4 of the City of Modesto Municipal Code (9-4.406 Floodways) states that:</p> <p>Since the floodway is an extremely hazardous area due to the velocity of floodwaters, which carry debris, potential projectiles and erosion potential, the following provisions apply:</p> <p>(a) Encroachment, including fill, new construction, substantial improvements and other development shall be prohibited unless certification by a registered civil engineer or licensed architect is provided demonstrating that encroachments shall not result in any increase in</p>	SU

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)		<p>flood levels during the occurrence of the base flood discharge.</p> <p>The potential effects of the placement of fill and construction of flood walls on local base flood elevations have not been evaluated by a registered civil engineer or licensed architect, and therefore it has not been determined whether a significant flooding impact would occur. This is a significant impact.</p> <p>D.5(a). To mitigate the potential impacts to local flooding conditions associated with placement of fill and construction of the flood walls proposed by the project, the City shall retain a qualified registered civil engineer or licensed architect to conduct the appropriate floodplain studies to determine whether the proposed floodplain encroachments could be constructed without increasing baseflood elevations upstream or downstream of the Primary Plant. If floodplain modeling indicates that the encroachments could be constructed without impacts to the baseflood elevations, the City will work with FEMA and the Reclamation Board to ensure that the design appropriate and all necessary permits are acquired prior to construction.</p> <p>If the floodplain studies indicate that baseflood elevations would increase due to construction of the flood wall and levee system, then other appropriate channel modifications (e.g. expansion of the floodway to the south) shall be considered to offset the increases. If no feasible options are available to offset modeled increases in baseflood elevations, then the proposed fill placement and flood walls will not be constructed. If the flood wall and levee system is not constructed, the impact to water quality (described under Impact</p>	
(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	<i>(cont'd.)</i>		D.5) would be significant and unavoidable.	
D.6	The proposed increase in application of wastewater and biosolids to land would not significantly affect regional groundwater quality.	LS	No mitigation necessary	LS
D.7	Implementation of the project would not result in depletion of groundwater resources.	LS	No mitigation necessary	LS
D.8	The project would include construction activities within the San Joaquin River channel and on nearby levees and would include placement of a permanent structure in the San Joaquin River channel. These activities could affect river flow patterns and degrade water quality.	S	To the extent feasible, all instream excavation and construction activities shall be conducted during low flow conditions in the river and work within the wetted channel will be avoided. As specified in the Biology section of this DEIR, the project sponsor will acquire all necessary permits from the US Army Corps of Engineers and California Department of Fish and Game (the provisions of these permits will include measures to protect water quality). In addition, the design of the new outfall and diffuser shall avoid, to the extent feasible, permanent features that extend above the active streambed that could cause flow disruption and scour.	LS
E. Biological Resources				
E.1	Construction of project facilities along the Tuolumne River adjacent to the Primary Plant, or in other riparian areas, could damage the habitat of the valley elderberry longhorn beetle. <i>(cont'd.)</i>	S	E.1.1. Pre-Construction Surveys: The project area and immediately adjacent area shall be surveyed and mapped by a qualified biologist for the presence of the valley elderberry longhorn beetle and its elderberry host species plant. Mitigation is not required for plants with no stems measuring 1.0 inch (2.5 cm) or greater in diameter at ground level and surveys are valid for a period of two years. If plants larger than these are identified in the survey,	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)			Measures E.1.2a through E.1.2c shall be implemented.	
			<p>E.1.2a. Agency Coordination and Consultation: The USFWS has issued a programmatic formal consultation (see Appendix A in the Biotic Study, Appendix C to this EIR.) pursuant to section 7 of the ESA regarding actions that the USACE may take on projects with limited impacts on the valley elderberry longhorn beetle or its elderberry host plant. The geographic scope of this programmatic consultation is the area within the jurisdiction of the Sacramento Field Office of the USFWS, which covers the Central Valley including Modesto and the surrounding area. The purpose of the programmatic document is to expedite consultations on proposed projects with relatively small impacts on the valley elderberry longhorn beetle. If a project meets the conditions outlined in the programmatic document, or if USFWS determines that a project will have similar impacts to those described below, the project may be appended to the programmatic document.</p> <p>All projects implemented under the programmatic consultation must meet the following four criteria, or be determined by the USFWS to have impacts similar in nature:</p> <ul style="list-style-type: none"> • No designated critical habitat will be affected; • Fewer than 25 elderberry plants are affected; • Fewer than 200 elderberry stems measuring 1.0 inch (2.5 cm) or greater in diameter exist at ground level in the action area; and • Less than 250 linear feet (76 m) of undeveloped watercourse exist in the action area. <p>Implementation of some features of the Wastewater Master Plan Update may impact USACE jurisdictional habitat. Therefore,</p>	
(cont'd.)				

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>construction along the banks of the Tuolumne River or other riparian areas where the appropriately-sized elderberry habitat is found would require USACE approval and necessary permits. Furthermore, these locations may fall within the jurisdiction of the Sacramento Field Office of USFWS. Finally, if any of the construction projects implementing the Wastewater Master Plan Update meets all four of the above criteria, they may be appended to the programmatic document. However, early consultation with the USACE and USFWS is recommended to determine adequate procedure, as implementation of a construction project will require a formal wetland delineation and determination by the USACE, modification and/or mitigation measures, and will require agency approval. The USFWS's Conservation Guidelines (see Appendix B in the Biotec Study, found in Appendix C in this EIR) establishes avoidance or replacement mitigation that would be appropriate for impacts on the elderberry shrub in the project area. The City shall implement either or both Measures E.1.2b and E.1.2c if appropriate in locations where construction would affect the valley elderberry longhorn beetle habitat.</p> <p>E.1.2b. Avoidance: Avoid and protect habitat whenever possible. If suitable habitat for the valley elderberry longhorn beetle occurs in the project area, these areas shall be designated as avoidance areas that will be protected from disturbance during construction. Any valley elderberry longhorn beetle habitat that cannot be avoided should be considered impacted and appropriate mitigation shall be implemented as described under Mitigation Measure E.1.2c.</p> <p>Core avoidance areas include all areas within 20 feet of the dripline of any elderberry plant with a stem measuring 1.0 inch (2.5 cm) or</p>	
	(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact	Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)		<p>greater in diameter at ground level. Such core areas should not be disturbed during construction. Buffer avoidance areas include all the area within 100 feet (30.5 m) of any elderberry plant with a stem measuring 1.0 inch (2.5 cm) or greater at ground level. If complete avoidance within a 100-foot (30.5 m) buffer cannot be provided, the USFWS must be consulted before any disturbances within the buffer area are considered. In addition, the USFWS must be provided with a map identifying the avoidance areas and written details describing the avoidance and protective measures. Protective measures include:</p> <ul style="list-style-type: none"> • Temporary construction fencing shall be constructed to provide a minimum setback of at least 20 feet from the dripline of each potential host elderberry plant. • A tailgate education program on the valley elderberry longhorn beetle shall be given to each construction worker and all personnel working within the project area to avoid adverse effects on the beetle. • Signs every 50 feet (15.2 m) along the edge of the fence shall be placed along the exclusion fence to help identify the area as a protected area for the valley elderberry longhorn beetle for the duration of construction. <p>Restoration and maintenance activities should be implemented if activities occur within the 100-foot (30.5 m) buffer zone. Restoration and maintenance activities include:</p> <ul style="list-style-type: none"> • Restore any damage done to the buffer area (area within 100 feet of elderberry plants) during construction. Provide erosion control and re-vegetate with appropriate native plants. • Buffer areas must continue to be protected after construction. Measures such as fencing, signs, weeding, and trash removal are usually appropriate. • No insecticides, herbicides, fertilizers, or other chemicals that 	
(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>might harm the beetle or its host plant should be used in the buffer areas, or within 100 feet of any elderberry plant with one or more stems measuring 1.0 inch or greater in diameter at ground level.</p> <ul style="list-style-type: none"> The applicant must provide a written description of how the buffer areas are to be restored, protected, and maintained after construction is completed. Mowing of grasses/ground cover may occur from July through April to reduce fire hazard. No mowing should occur within five (5) feet of elderberry plant stems. Mowing must be done in a manner that avoids damaging plants (e.g., stripping away bark through careless use of mowing/trimming equipment). <p>E.1.2c. Transplantation of Elderberry Plants: If elderberry shrubs cannot be avoided, elderberry plants with one or more stems measuring 1.0 inch (2.5 cm) or greater in diameter at ground level should be transplanted to a mitigation area. The following guidelines will be followed.</p> <ul style="list-style-type: none"> A qualified biologist shall monitor the project and mitigation sites for the duration of the transplanting to ensure no unauthorized take or loss of individuals occurs. Elderberry plants will be transplanted after shrubs have lost their leaves and are dormant, usually from November through the first two weeks in February. Transplanting shall be conducted according to standard procedures set forth by the USFWS, which includes planting additional seedlings or cuttings at various ratios for plants removed for translocating. A mitigation area set aside for translocated plants shall provide habitat for the beetle in perpetuity. The mitigation area should provide at least 1,800 square feet for each transplanted elderberry 	
	(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>shrub and follow USFWS guidelines for other associated native plants to be planted within the area. This mitigation area shall be weeded by mechanical means (no herbicides) once a year.</p> <ul style="list-style-type: none"> The mitigation area will be monitored for the general condition of the mitigation area, the condition of the elderberry plants, and the associated native plants, for a period of 10 consecutive years with surveys and reports every year, or for 15 years of monitoring with surveys and reports on years 1, 2, 3, 5, 7, 10, and 15. Reports shall be provided to the USFWS. <p>If Mitigation Measure E.1.1 is implemented in the appropriate locations, and E.1.2a through E.1.2c are implemented where habitat is found, impact to the valley elderberry longhorn beetle would be less than significant.</p>	
E.2	<p>Construction of project facilities could cause loss of occupied Burrowing Owl habitat.</p> <p>(cont'd.)</p>	S	<p>E.2.1. Avoidance: In conformance with Federal and State regulations regarding the protection of raptors, a pre-construction survey for Burrowing Owls shall be completed, in conformance with CDFG guidelines, prior to the start of construction within suitable habitat. If no Burrowing Owls are located during these surveys, no additional action would be warranted. However, if breeding or resident owls are located on, or immediately adjacent to, the site, the following mitigation measures shall be implemented:</p> <ul style="list-style-type: none"> No burrowing owls would be evicted from burrows during the nesting season (February 1 through August 31). Eviction outside the nesting season may be permitted pending evaluation of eviction plans and receipt of formal written approval from the CDFG authorizing the eviction. A 250-foot buffer, within which no new activity would be permissible, would be maintained between project activities and nesting burrowing owls. This protected area would remain in 	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)			<p>effect until August 31, or at the CDFG's discretion and based upon monitoring evidence, until the young owls are foraging independently.</p> <ul style="list-style-type: none"> If accidental take (disturbance, injury, or death of owls) occurs, the CDFG would be notified immediately. 	
			<p>E.2.2. Compensation for loss of Burrowing Owl habitat: If a pre-construction survey finds that Burrowing Owls occupy the project site and avoiding construction in occupied areas is not feasible, then habitat compensation on off-site mitigation lands should be implemented. Habitat Management lands comprising existing Burrowing Owl foraging and breeding habitat shall be acquired and preserved. An area of 6.5 acres (2.6 ha) (the amount of land found to be necessary to sustain a pair or an individual owl) should be secured for each pair of owls, or individual in the case of an odd number of birds. As part of an agreement with the CDFG, the project applicant should secure the performance of its mitigation duties by providing the CDFG with security in the form of funds that would:</p> <ul style="list-style-type: none"> Allow for the acquisition and/or preservation of 6.5 acres (2.6 ha) of Habitat Management lands. Provide initial protection and enhancement activities on the Habitat Management lands, potentially including but not limited to such measures as fencing, trash clean-up, artificial burrow creation, grazing or mowing, and any habitat restoration deemed necessary by CDFG. Establish an endowment for the long-term management of the Habitat Management lands. Reimburse the CDFG for reasonable expenses incurred as a result of the approval and implementation of this agreement. 	

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>Pending CDFG approval, Habitat Management lands providing foraging habitat for Swainson's Hawks (see "Loss of Swainson's Hawk Foraging Habitat" below) may also be used to mitigate impacts to Burrowing Owls provided the Habitat Management lands provide existing Burrowing Owl foraging and breeding habitat.</p> <p>Implementation of either of the mitigation measures would reduce the potential impact on this species to a less-than-significant level.</p>	
E.3	Construction of project facilities could cause disturbance of nesting raptors.	S	<p>E.3.1. Avoidance: To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from January through August.</p> <p>E.3.2. Pre-construction Surveys: If it is not possible to schedule construction between August and January, then one of the following options shall be implemented:</p> <ul style="list-style-type: none"> • With the approval of the CDFG, trees containing known or potential raptor nest sites may be removed to discourage future nesting attempts on the condition that no raptor pair is currently utilizing the site; or, • Pre-construction surveys for nesting raptors shall be conducted by a qualified ornithologist or wildlife biologist to ensure that no raptor nests would be disturbed during project implementation. A pre-construction survey shall be conducted prior to the initiation of demolition/construction activities during the early part of the breeding season (January through April) and prior to the initiation of these activities during the late part of the breeding season (May through August). During this survey, the qualified person shall inspect all trees in and immediately adjacent to the impact areas for raptor nests. If an active raptor nest is found close enough to the construction area to be disturbed by these activities, the 	LS
	(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>ornithologist, in consultation with CDFG, shall determine the extent of a construction-free buffer zone to be established around the nest.</p> <p>Implementation of either of these mitigation measures would reduce the potential for significant impacts to less-than-significant levels.</p>	
E.4	<p>Construction of the project facilities could cause impacts to biological resources and regulated habitats of Dry Creek (Beard Brook) and of the Tuolumne River.</p> <p>(cont'd.)</p>	S	<p>E.4.1. Pre-Construction Surveys and Agency Coordination: Pre-construction surveys shall be conducted prior to project-related activities that would impact the resources of Dry Creek or the Tuolumne River in order to identify potentially significant impacts. If Dry Creek, the Tuolumne River, or their tributaries are impacted by project activities, USACE permits and a Streambed Alteration Agreement from CDFG may be required. If regulated habitats are impacted by project activities, USACE permits and a Streambed Alteration Agreement from CDFG would be required. Early consultation with the USACE and CDFG is recommended to determine adequate protocols, as project modification and/or mitigation measures may be necessary and would require agency approval.</p> <p>E.4.2. Mitigation for Species of Special Status: If construction activities would result in impacts to any of the special-status species identified as possibly occurring in the project area, mitigation measures for that species should be implemented. If surveys indicate that impacts would result to a special-status species not identified as possibly occurring in the project area, or for which mitigation measures are not described in this report, avoidance and minimization measures to reduce project impacts to less than significant levels should be determined through coordination with the City of Modesto, CDFG, and USFWS.</p>	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		Implementation of either of these measures would reduce impacts to less-than-significant levels.	
E.5	Construction of project facilities or development facilitated by construction of project facilities could cause loss of Swainson's Hawk foraging habitat.	S	<p>E.5. Compensation for loss of foraging habitat: If project facilities are constructed on lands identified as potential foraging habitat for Swainson's Hawks then the impacts shall be mitigated by providing offsite Habitat Management lands as described in the CDFG protocol.</p> <p>The final acreage of offsite management lands to be provided would depend on the distance between the project area and the nearest active nest site. Prior to grading of any site with potential foraging habitat, protocol-level surveys should be conducted to determine the nearest active nest. The 1994 CDFG staff report states (HM = Habitat Management in the following paragraphs):</p> <ul style="list-style-type: none"> • Projects within one mile of an active nest tree shall provide: <ul style="list-style-type: none"> – One acre of HM land (at least 10% of the HM land requirements shall be met by fee title acquisition or a conservation easement allowing for the active management of the habitat, with the remaining 90% of the HM lands protected by a conservation easement [acceptable to the Department] on agricultural lands or other suitable habitats that provide foraging habitat for Swainson's Hawk) for each acre of development authorized (1:1 ratio); or – One-half acre of HM land (all of the HM land requirements shall be met by fee title acquisition or a conservation easement [acceptable to the Department] which allows for the active management of the habitat for prey production on the HM lands) for each acre of development authorized (0.5:1 ratio) • Projects within 5 miles of an active nest tree but greater than 1 	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>mile from the nest tree shall provide 0.75 acres of HM land for each acre of urban development authorized (0.75:1 ratio). All HM lands protected under this requirement may be protected through fee title acquisition or conservation easement (acceptable to the department) on agricultural lands or other suitable habitats that provide foraging habitat for Swainson's Hawks.</p> <ul style="list-style-type: none"> Projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree shall provide 0.5 acres of HM land for each acre of urban development authorized (0.5:1 ratio). All HM lands protected under this requirement may be protected through fee title acquisition or conservation easement (acceptable to the Department) on agricultural lands or other suitable habitats that provide foraging habitat for Swainson's Hawks. Management Authorization holders/project sponsors shall provide for the long-term management of the HM lands by funding a management endowment (the interest on which shall be used for managing the HM lands) at the rate of \$400 per HM acre (adjusted annually for inflation and varying interest rates). <p>Implementation of these mitigation measures would reduce the potential impact on this species to a less-than-significant level.</p>	
E.6	<p>Construction during the Swainson's Hawk breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.</p> <p>(cont'd.)</p>	S	<p>E.6a. Pre-construction surveys: In order to assure that nesting Swainson's Hawks will not be disturbed by construction activities, a qualified ornithologist shall conduct pre-construction surveys of the project site and adjacent areas within one mile of the project site. Survey Period I occurs from January 1 to March 20, Period II from March 20 to April 5, Period III from April 5 to April 20, Period IV from April 21 to June 10 (surveys not recommended during this period because identification is difficult as the adults tend to remain within the nest for longer periods of time), and Period V from June</p>	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>10 to July 30. No fewer than three surveys shall be completed, in at least each of the two survey periods immediately prior to project initiation. If a nest site is found, consultation with CDFG shall be required to ensure project initiation will not result in nest disturbance.</p> <p>E.6b. Removal of Nest Trees: Nest trees on the project site(s) should not be removed unless avoidance measures are determined to be infeasible. If a nest tree must be removed, a Management Authorization (including conditions to off-set the loss of the nest tree) must be obtained. The Management Authorization will specify the tree removal period, generally between October 1 – February 1. If construction or other project related activities which may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site by a qualified biologist should be required to determine if the nest is abandoned. If it is abandoned, and if the nestlings are still alive, the City shall fund the recovery and hacking (controlled release of captive reared young) of nestling(s).</p> <p>Implementation of these mitigation measures would reduce the potential impact from nest disturbance to a less-than-significant level.</p>	
E.7	<p>Construction of improvements to the Secondary Treatment Plant may cause impacts to regulated habitats.</p> <p>(cont'd.)</p>	S	<p>E.7. Pre-Construction Surveys and Agency Coordination: If project facilities are constructed on or adjacent to wetland areas and those areas potentially under the jurisdiction of the USACE and/or CDFG, pre-construction surveys shall be conducted. If these areas would be impacted by project activities, USACE permits and a Streambed Alteration Agreement from CDFG would be required. These agencies would request adequate measures to offset impacts to riparian and aquatic resources. Early consultation with the USACE and CDFG is recommended to determine adequate protocol, as</p>	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>project modification and/or mitigation measures may be necessary and would require agency approval.</p> <p>Implementation of this mitigation measure would reduce impacts to less-than-significant levels.</p>	
E.8	Microtunneling could cause impacts to riparian habitats under the jurisdiction of the California Department of Fish and Game and/or the U.S. Army Corps of Engineers.	S	E.8. Preconstruction Surveys and Agency Coordination: Prior to initiating microtunneling in a riparian area, a survey should be conducted to determine whether special status species or habitats are present on or immediately adjacent to the construction area. If it is determined that such species or habitats are present, and if the temporary impacts are determined to be significant, coordination with CDFG and USACE shall occur to determine appropriate avoidance steps or detailed mitigation measures to carry out prior to and during construction. These measures could include establishing a riparian buffer between the construction area and the identified resource or habitat, and monitoring during construction by appropriately qualified scientist(s).	LS
E.9	Construction activities could affect the habitat for Western Pond Turtles, the nesting and foraging habitat for Loggerhead Shrikes, and foraging habitat for Short-eared Owls, Northern Harriers, and Tricolored Blackbirds.	LS	No mitigation necessary	LS
E.10	Additional discharges of treated wastewater to the San Joaquin River from the Secondary Plant could affect the spawning habitat or affect the health of the Sacramento Splittail.	LS	No mitigation necessary	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
E.11	Growth facilitated by the project would result in cumulative loss of Swainson's Hawk and Burrowing Owl habitat.	S	Implement Mitigation Measures E.2, E.5, and E.6.	LS
F. Transportation				
F.1	Temporary reduction in roadway capacity and increased traffic delays.	LS	No mitigation necessary	LS
F.2	Short-term traffic increases on roadways due to construction-related vehicle trips.	LS	No mitigation necessary	LS
F.3	Increased potential for traffic safety hazards for vehicles, bicyclists, and pedestrians on public roadways during construction.	LS	No mitigation necessary	LS
F.4	Increases in vehicle trips to and from the facility sites for operation and maintenance.	LS	No mitigation necessary	LS
F.5	The Wastewater Master Plan Update would accommodate growth that would cause direct and cumulatively considerable traffic impacts identified in the Urban Area General Plan.	SU	With implementation of the Urban Area General Plan 2003 Final Master EIR's mitigation measures related to traffic, the significant cumulative impacts would be reduced, but not to less-than-significant levels.	SU

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
G. Air Quality				
G.1	Emissions of criteria pollutants during construction of wastewater system improvements would contribute to existing violations of the ambient air quality standards in the region.	S	<p>G.1: The construction plans for each group of building permits shall incorporate the following recommendations from the District to minimize emissions during construction phases:</p> <ul style="list-style-type: none"> • The City or its contractor(s) shall review Regulation VIII of the San Joaquin Valley Air Pollution Control District regulations and prepare a compliance plan prior to commencing any phase of construction. The compliance plan must demonstrate that the current requirements of Regulation VIII will be implemented. • Prior to the issuance of construction contracts, the City or its contractor(s) shall perform a review of new technology, as it relates to heavy-duty equipment, to determine what, if any, advances in emissions reduction are available for use. It is anticipated that in the near future both NO_x and PM₁₀ control equipment will be available. The San Joaquin Valley Air Pollution Control District should be consulted during this process. • The City or its contractor(s) shall limit traffic speed on unpaved roads to 15 miles per hour. • The City or its contractor(s) shall install sandbags or other control measures to prevent silt runoff to public roadways from sites with a slope greater than 1 percent. • The City or its contractor(s) shall install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site, to prevent track-out of soil to public roadways. • The City or its contractor(s) shall install windbreaks at windward sides of construction areas, if necessary to prevent wind-blown dust. • The City or its contractor(s) shall suspend excavation and grading activity when winds exceed 20 miles per hour. • The City or its contractor(s) shall limit the area subject to 	SU

(cont'd.)

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)			<p>excavation, grading, and other construction activity at any one time.</p> <ul style="list-style-type: none"> The City or its contractor(s) shall ensure that the accumulation of mud or dirt is expeditiously removed from adjacent public streets at least once every 24 hours when construction activities are occurring (the use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions). The City or its contractor(s) shall use alternative-fuel construction equipment, where feasible. The City or its contractor(s) shall minimize idling time (e.g., to a 10-minute maximum). The City or its contractor(s) shall limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use to the minimum practical. The City or its contractor(s) shall replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable generator set), where feasible. The City or its contractor(s) shall take steps to curtail construction activity during periods of high ambient pollutant concentrations; this may include reducing construction activity during the peak hour of vehicular traffic on adjacent roadways or ceasing construction activity during days declared as Spare the Air days by the San Joaquin Valley Air Pollution Control District. The City or its contractor(s) shall implement activity management to reduce cumulative short-term impacts. <p>Implementation of Mitigation Measure G.1 would reduce the impacts of construction-related PM₁₀ and impacts of ozone precursors from construction equipment exhaust to the extent possible, but would still</p>	
(cont'd.)				

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		result in a net increase in emissions. Therefore, under the City's criterion regarding a net increase in emissions, this impact would remain significant and unavoidable.	
G.2	Emissions of criteria pollutants during operation of the proposed wastewater system improvements would contribute to existing violations of the ambient air quality standards in the region.	S	G.2: The City shall abide by permit limits imposed by the SJVAPCD to reduce pollutant emissions from diesel-powered engines for emergency power generation and any other sources requiring permits. The City shall abide by permit limits imposed by the SJVAPCD on operation of digester-gas burning equipment at the Primary Plant. If District Rule 9510 would apply, the City shall follow it and make the required emission reductions on-site (or pay for or create off-site emission reductions). Even with mitigation, the contribution of particulates and ozone precursors to regional air quality would be a significant and unavoidable impact.	SU
G.3	Emissions during project operation could cause sensitive receptors to be exposed to toxic air contaminants.	LS	No mitigation necessary	LS
G.4	Emissions of objectionable odors could occur during project operation.	LS	No mitigation necessary	LS
G.5	The Wastewater Master Plan Update would accommodate growth that would cause direct and cumulatively considerable air quality impacts identified in the Urban Area General Plan.	S	G.5: With implementation of the <i>Urban Area Master Plan's</i> mitigation measures related to traffic and energy use (and related to carbon monoxide and particulate matter, in particular), the significant cumulative impacts would be reduced, but not to less-than-significant levels.	SU

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
G.6	The wastewater treatment facilities would cause a cumulatively considerable net increase of pollutants for which the San Joaquin Valley is designated as nonattainment.	S	G.6: See mitigation measures listed under Impacts G.1 and G.2. With implementation of these measures, significant cumulative impacts would be reduced, but not to less-than-significant levels.	SU
H. Noise				
H.1	Construction of the proposed project facilities could cause substantial, though intermittent and short-term, increases in noise levels, which would add to noise levels predicted by the City's <i>General Plan MEIR</i> and the <i>County General Plan</i> . (cont'd.)	S	H.1. Protection of sensitive receptors from excessive construction noise: In areas where there are sensitive receptors, the City shall ensure that contractors implement the following practices: <ul style="list-style-type: none"> To the extent feasible, construction activities shall be restricted to the hours between 7:00 a.m. and 9:00 p.m., Monday through Friday, and between 9:00 a.m. and 9:00 p.m., Saturday and Sunday and state or federal holidays; minor construction equipment servicing and maintenance shall be excepted from this restriction. Construction equipment and vehicles should be equipped with properly operating mufflers according to the manufacturers' recommendations. Air compressors and pneumatic equipment should be equipped with mufflers, and impact tools should be equipped with shrouds or shields. Stationary noise sources and construction staging areas shall be located as far as possible from existing residences, hospitals, schools, churches, and parks (preferably at least 200 feet), or contractors shall be required to provide additional noise-reducing engine enclosures (with the goal of achieving approximately 10 dBA of reduction compared to uncontrolled engines). 	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		Construction vehicle access routes shall be designed to minimize the impact on sensitive land uses such as schools and residential areas.	
H.2	Operation of new stationary sources of noise at the Primary and Secondary Plants associated with the proposed project could generate noise.	LS	No mitigation necessary	LS
H.3	Increased trips by Public Works Department employees could cause noise increases for existing sensitive receptors in the project vicinity.	LS	No mitigation necessary	LS
H.4	The proposed project would support cumulative development that could increase noise levels in areas where noise levels exceed, or would exceed, the noise and land use compatibility guidelines adopted by the City of Modesto and Stanislaus County, or the noise performance standards set by the City and County.	S	See Mitigation Measure H.1	SU
I. Visual Resources				
I.1	The proposed above-ground structures associated with wastewater collection would impact the visual quality of their surroundings.	LS	No mitigation necessary	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
I.2	At the Primary and Secondary Plants, the proposed new above-ground structures and alterations to existing above-ground structures could impact visual quality of their surroundings.	LS	No mitigation necessary	LS
J. Public Health and Safety: Hazardous Materials				
J.1	Hazardous materials use, storage, and transportation during construction would cause potential hazards to the public and the environment.	LS	No mitigation necessary	LS
J.2	Hazardous materials use, storage, and transportation during the operation of the wastewater collection and treatment system would cause potential hazards to the public and the environment.	LS	No mitigation necessary	LS
J.3	Increased use of chlorine and sulfur dioxide at the Secondary Plant could expose workers and the public to accidental release of toxic gases.	LS	No mitigation necessary	LS
J.4	Construction and operation of the wastewater collection and treatment facilities would increase the amount of hazardous wastes generated at the facilities, resulting in increased hazards to the public and the environment.	LS	No mitigation necessary	LS

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
J.5	The project would involve increased use and transport of hazardous materials and hazardous wastes within California.	LS	No mitigation necessary	LS
K. Public Health and Safety: Contaminated Soils and Demolition				
K.1	Excavation for installation of wastewater system improvements could encounter contaminated soil and/or groundwater and expose workers and the public to hazardous substances.	S	<p>K.1a. Prior to activities involving soil disturbance for the improvements to the wastewater collection and treatment systems, the City shall use reasonable means to determine the presence of soil or groundwater contamination. Those reasonable means may consist of soil gas surveys, soil or groundwater sampling, and/or a Phase I Environmental Site Assessment conducted by a qualified professional (e.g., a California-registered environmental assessor, Professional Geologist, or Professional Engineer). Any Phase I environmental site assessment shall be performed in conformance with the most recent standard adopted by ASTM International for Phase I site assessments, and shall present recommendations for further investigation of the site, if necessary (see Mitigation Measure K.1b below for details).</p> <p>K.1b. If warranted, conduct soil and groundwater sampling and analysis. If the investigation activities in Mitigation Measure K.1a (e.g., soil gas surveys, sampling, and/or preparation of a Phase I environmental site assessment) were to indicate that a release of hazardous materials could have affected the location(s) where soil disturbance would occur, a Soil and/or Groundwater Investigation shall be conducted prior to soil disturbance by a qualified environmental professional (e.g., Professional Geologist, Professional Engineer) to assess the presence and extent of contamination at the site and the potential risk to human health and public safety from the contamination (if any). The Soil and/or</p>	LS
(cont'd.)				

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>Groundwater Investigation shall be conducted in accordance with state and local guidelines and regulations, and the most recent ASTM International Standard for Phase II Environmental Site Assessments, with oversight from a regulatory agency (e.g., Stanislaus County Environmental Resources Department). The findings of the investigation shall be documented in a written report and submitted to the regulatory agency and the City.</p> <p>K.1c. If warranted, prepare a site remediation plan and health and safety plan. If the results of the subsurface investigation(s) (described in Mitigation Measure K.1b) indicate the presence of hazardous materials, the Stanislaus County Department of Environmental Resources shall be notified, and site remediation may be required by the applicable state or regulatory agency or the County Department of Environmental Resources Site Mitigation Unit. Specific remedies would depend on the extent and magnitude of contamination and the requirements of the regulatory agencies. Under the direction of the regulatory agencies and the City, a Site Remediation Plan shall be prepared, as required, by the contractor(s). The Plan shall: 1) specify measures to be taken to protect workers and the public from exposure to the potential site hazards, and 2) certify that the proposed remediation measures would clean up the waste, dispose the wastes, and protect public health in accordance with federal, state, and local requirements.</p> <p>If the parcel is found to be contaminated to a level that prohibits the proposed use, the potential for reduction of the hazard shall be evaluated in the Site Remediation Plan, in accordance with the General Plan. Groundbreaking activities in the areas of potential hazard shall not proceed until the Site Remediation Plan has been</p>	
	(cont'd.)			

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
(cont'd.)			reviewed and approved by the County and is on file with the City.	
			<p>K.1d. Where any activity would be performed at a contaminated site or where hazardous materials are suspected, the City's contractor shall prepare a project-specific Health and Safety Plan prior to any site work. The Health and Safety Plan shall be prepared by the contractor(s) filed with the City and regulatory agencies (as required). The Plan shall include required worker health and safety provisions for all workers potentially exposed to contaminated materials at the site, identification of hazardous materials present, monitoring to be performed during site activities (as appropriate), required training for workers, identification of appropriate personal protective equipment and emergency response procedures, and designation of personnel responsible for Plan implementation.</p> <p>K.1e. Prepare a Waste Disposal and Hazardous Materials Transportation Plan. The contractor(s) shall prepare a Waste Disposal and Hazardous Materials Transportation Plan prior to construction activities where hazardous wastes or materials requiring off-site disposal would be generated. The plan shall include a description of analytical methods for characterizing wastes and handling methods required to minimize the potential for exposure, and shall establish procedures for the safe storage of contaminated materials, stockpiling of soils, and storage of dewatered groundwater (as appropriate). The required disposal method for contaminated materials (including any lead-based paint, asbestos, or other hazardous building materials requiring disposal, see Mitigation Measure K.3) and the approved disposal site shall be indicated in the Plan. The Plan shall also identify specific routes to be used for transport of hazardous materials and waste to and from the project</p>	

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>site, or specific routes to be avoided during transport. Routes shall be selected to minimize proximity to sensitive receptors to the greatest practical degree. Elements of the Plan regarding transportation of hazardous materials and wastes shall be reviewed and approved by the City Fire Department.</p> <p>K.1f. In the event that previously unidentified contamination is encountered (e.g., identified by odor or visual staining) during soil disturbance activities, or any underground storage tanks, abandoned drums, or other hazardous materials or wastes are encountered during construction, the contractor(s) shall immediately notify the City, and the City shall then notify the County. The contractor(s) shall have prepared a Contingency Plan for Sampling and Analysis of potentially hazardous substances and coordination with appropriate regulatory agencies. The Plan shall be submitted to the City prior to project activities involving soil disturbance. Any site investigations or remedial activities shall be performed in accordance with applicable laws under the direction of a regulatory agency and the City, in accordance with Mitigation Measures K.1c through K.1e above.</p> <p>Implementation of the above mitigation measures would reduce this impact to a less-than-significant level.</p>	

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
K.2	Pipe bursting methods could release potentially hazardous material contaminants into soil and groundwater, causing health effects to construction workers and the public, and environmental degradation.	S	K.2. The contractor(s) shall prepare a procedure for review by the City for emptying pipes of their contents before pipe bursting begins. Once accepted by the City, with revisions if requested, the contractor shall implement the procedure prior to carrying out any pipe bursting. The purpose of this measure is to avoid the migration of any potentially hazardous materials in the pipes that may be released during pipe bursting into soil and groundwater, and to ensure the health and safety of construction workers and the public by reducing potential exposure. Material removed from the pipes before pipe bursting shall be characterized, handled, stored, and disposed of in accordance with the requirements of Mitigation Measure K.1e, above. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LS
K.3	Construction activities involving demolition or modification of structures may result in the exposure of construction workers and the general public to added health risk.	S	<p>K.3. As a condition of approval for any demolition permit for a structure or facility potentially containing lead or asbestos under the proposed project, a lead-based paint and asbestos-containing survey shall be performed at the structure or facility by a qualified environmental professional. Also, any major modification to structures constructed prior to 1980 shall require a similar lead and asbestos survey for those portions of the structure to be modified. Based on the findings of the survey, all loose and peeling lead-based paint and identified asbestos hazards shall be abated by a certified contractor in accordance with local, state, and federal requirements. The findings of the survey shall be submitted to the City.</p> <p>Other hazardous materials and wastes generated during demolition or renovation activities, such as fluorescent light tubes and mercury switches, shall be managed and disposed of in accordance with applicable universal and hazardous waste regulations. Federal and state construction worker health and safety regulations shall apply to</p>	LS

(cont'd.)

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

II. Summary

Table II-1: Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measure(s)	Level of Significance After Mitigation
	(cont'd.)		<p>demolition activities, and any required worker health and safety procedures shall be incorporated into the contractor's specifications for the project. The requirements of Mitigation Measures K.1c through K.1f shall also apply.</p> <p>Implementation of these mitigation measures would reduce this impact to less than significant.</p>	

LS = Less than Significant

S = Significant

SU = Significant and Unavoidable

Appendix E. Special-Status Species

Table E-1. Special-Status Plant Species with the Potential to Occur in the City of Modesto General Plan Area

Common and Scientific Name	Status ^a : Federal/State/ CNPS	Distribution	Preferred Habitats	Blooming Period	Potential for Occurrence in the General Plan Area ^b
Alkali milk-vetch <i>Astragalus tener</i> var. <i>tener</i>	—/—/1B.2	Merced, Solano, and Yolo Counties. Historically more widespread.	Grassy flats and vernal pool margins, on alkali soils; below 200 feet.	March–June	Moderate
Heartscale <i>Atriplex cordulata</i>	—/—/1B.2	Western Central Valley and valleys of adjacent foothills	Alkali grassland, alkali meadow, and alkali scrub, below 660 feet	May–October	Moderate
Crownscale <i>Atriplex coronata</i> var. <i>coronata</i>	—/—/4.2	Southern Sacramento Valley, San Joaquin valley, eastern south coast inner range, Alameda, Contra Costa, Fresno, Kings, Kern, Glenn, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Stanislaus Counties	Chenopod scrub, valley and foothill grassland, vernal pools, on fine alkaline soils below 660'	April–October	Moderate
Brittlescale <i>Atriplex depressa</i>	—/—/1B.2	Western Central Valley and valleys of adjacent foothills on west side of Central Valley	Alkali grassland, alkali meadow, alkali scrub, chenopod scrub, playas, and valley and foothill grasslands on alkaline or clay soils, below 660 feet	May–October	Moderate
Lesser saltscale <i>Atriplex minuscula</i>	—/—/1B.1	Butte, Fresno, Madera, Merced, Tulare	Alkali grassland, alkali meadow, alkali scrub, and saltbush scrub, between 50 and 650 feet	May–October	High
Vernal pool (persistent- fruited) saltscale <i>Atriplex persistens</i>	—/—/1B.2	Central Valley, from Glenn to Tulare County	Dry beds of vernal pools, on alkaline soils, 33-380'	April–October	Moderate
Big tarplant <i>Blepharizonia plumosa</i>	—/—/1B.1	Alameda, Contra Costa, San Joaquin*, Stanislaus*, and Solano* counties	Valley and foothill grassland	July–October	High
Round-leaved filaree <i>California macrophylla</i> [<i>Erodium macrophyllum</i>]	—/—/2.1	Sacramento Valley, northern San Joaquin Valley, central-western California, south coast, and northern Channel Islands (Santa Cruz Island).	Open sites, dry grasslands, and shrublands below 4,000 feet.	March–May	Moderate

Table E-1. Continued

Common and Scientific Name	Status ^a : Federal/State/ CNPS	Distribution	Preferred Habitats	Blooming Period	Potential for Occurrence in the General Plan Area ^b
Sharsmith's harebell (Mt. Hamilton harebell) <i>Campanula sharsmithiae</i>	—/—/1B.2	Mt. Hamilton range	Barren, rocky serpentinite areas in chaparral, 1,300-3,000'	May-June	None—no serpentinite known in the area
Succulent owl's-clover <i>Castilleja campestris</i> ssp. <i>succulenta</i>	T/E/1B.2	Fresno, Madera, Merced, Mariposa, San Joaquin, Stanislaus	Vernal pools between 165 and 2,500 feet	April-May	Moderate
California jewel-flower <i>Caulanthus californicus</i>	E/E/1B.1	Historically common in western San Joaquin Valley and interior foothills, currently at scattered locations in Fresno, Kern, San Luis Obispo and Santa Barbara Counties	Sandy or loamy soils in annual grassland, chenopod scrub, pinyon-juniper woodland	February-May	Moderate
Lemmon's jewel-flower <i>Caulanthus coulteri</i> var. <i>lemmonii</i>	—/—/1B.2	Western Central Valley and valleys of adjacent foothills on west side of Central Valley	Pinyon and juniper woodland, and valley and foothill grassland, between 250 and 4,000 feet	March-May	Low
Hoover's spurge <i>Chamaesyce hooveri</i>	T/—/1B.2	Central Valley from Butte County to Tulare County	Below the high-water marks of large northern hardpan and volcanic vernal pools, below 800'	July	Moderate
Mt. Hamilton thistle <i>Cirsium foninale</i> var. <i>campylon</i>	—/—/1B.2	Mt. Hamilton Range, eastern San Francisco Bay area: Alameda, Santa Clara, and Stanislaus Counties	Freshwater seeps and streams on serpentinite outcrops, chaparral, cismontane woodland, valley and foothill grassland, 1000-2500'	April-October	None—no serpentinite known in the area
Beaked clarkia <i>Clarkia rostrata</i>	—/—/1B.3	Central Sierra Nevada Foothills, San Joaquin Valley, Hell Hollow, and Merced River drainage: Merced, Mariposa, and Stanislaus Counties	Annual grassland and blue oak-foothill pine woodland, on dry slopes, 200-1,500'	April-May	Moderate
Small-flowered morning glory <i>Convolvulus simulans</i>	—/—/4.2	San Joaquin Valley, central western and southwestern California, southern Channel Islands; Baja California	Chaparral openings, coastal scrub, valley and foothill grassland, on clay soils in serpentinite seeps, 100-2,300'	March-July	None—no serpentinite known in the area
Mt. Hamilton coreopsis <i>Coreopsis hamiltonii</i>	—/—/1B.2	Eastern San Francisco Bay, Santa Clara and Stanislaus Counties	Steep shale talus slopes of cismontane woodland	March-May	None—no talus slopes in the area

Table E-1. Continued

Common and Scientific Name	Status ^a : Federal/State/ CNPS	Distribution	Preferred Habitats	Blooming Period	Potential for Occurrence in the General Plan Area ^b
Hoover's cryptantha <i>Cryptantha hooveri</i>	-/-1A	Northern and central San Joaquin Valley. Alameda, Contra Costa, Madera, Merced, San Joaquin, and Stanislaus Counties.	Coarse, sandy soil in valley and foothill grassland between 30 and 500'.	April-May	Moderate
Recurved larkspur <i>Delphinium recurvatum</i>	-/-1B.2	Central Valley from Colusa* to Kern Counties	Alkaline soils in valley and foothill grassland, saltbush scrub, cismontane woodland; below 2,500'	March-June	Moderate
Dwarf downingia <i>Downingia pusilla</i>	-/-2.2	Central Valley	Vernal pools and valley and foothill grasslands	March-May	Moderate
Delta button-celery <i>Eryngium racemosum</i>	-/E/1B.1	San Joaquin River delta, floodplains, and adjacent Sierra Nevada foothills: Calaveras, Merced, San Joaquin*, and Stanislaus Counties	Riparian scrub, seasonally inundated depressions along floodplains on clay soils, below 250'	June-August	High
Spiny-sepaled button-celery <i>Eryngium spinosepalum</i>	-/-1B.2	Fresno, Madera, Stanislaus, Tulare, Tuolumne	Valley and foothill grasslands and vernal pools, between 330 and 830 feet	April-May	Moderate
Diamond-petaled California poppy <i>Eschscholzia rhombipetala</i>	-/-1B.1	Interior foothills of south Coast Ranges from Contra Costa County to Stanislaus County. Carrizo Plain in San Luis Obispo County.	Grassland, chenopod scrub, on clay soils, where grass cover is sparse enough to allow growth of low annuals.	March-April	Moderate
Talus fritillary <i>Fritillaria falcata</i>	-/-1B.2	South inner coast ranges. Alameda, Monterey, San Benito, Santa Clara, and Stanislaus Counties	Chaparral, oak woodland, closed-cone coniferous forest, on serpentinite talus	March-May	None—no serpentine known in the area
Legenere <i>Legenere limosa</i>	-/-1B.1	Primarily located in the lower Sacramento Valley, also from north Coast Ranges, northern San Joaquin Valley, and Santa Cruz Mountains.	Deep, seasonally wet habitats such as vernal pools, ditches, marsh edges, and river banks, below 500 feet.	May-June	Moderate
Red-flowered lotus <i>Lotus rubriflorus</i>	-/-1B.1	Inner north Coast Ranges and San Francisco Bay area, Colusa, Stanislaus, and Tehama Counties	Cismontane woodland, valley and foothill grassland, on sterile red soils and volcanic mudflow deposits	April-June	Low

Table E-1. Continued

Common and Scientific Name	Status ^a : Federal/State/ CNPS	Distribution	Preferred Habitats	Blooming Period	Potential for Occurrence in the General Plan Area ^b
Showy madia <i>Madia radiata</i>	—/—/1B.1	Contra Costa, Fresno, Kings, Kern, Monterey, Santa Barbara, San Benito, San Joaquin, San Luis Obispo	Cismontane woodland, valley and foothill grassland, between 80 and 3,000 feet	March–May	Moderate
Merced monardella <i>Monardella leucocephala</i>	—/—/1A	Presumed extirpated, last seen in 1941, historically known from northern San Joaquin Valley	Moist, sub-alkaline soils associated with low elevation grassland, in sandy depressions and riverbeds, 115-330'	May–August	Low
San Joaquin woollythreads <i>Monolopia (Lembertia) congonii</i>	E/—/1B.2	Carrizo Plain and western San Joaquin valley from San Benito County to Kern County	Saltbush scrub, grassland, on flats in alkaline or loamy soils	March–May	Moderate
Little mouseltail <i>Myosurus minimus</i> ssp. <i>apus</i>	—/—/3.1	Central Valley, South Coast: Alameda, Butte, Contra Costa, Colusa, Kern, Riverside, San Bernardino, San Diego, Solano, and Stanislaus Counties	Alkaline vernal pools and marshes	March–June	Moderate
Colusa grass <i>Neostapfia colusana</i>	T/E/1B.1	Merced, Solano, and Yolo counties	Vernal pools on adobe soils	May–August	Moderate
California adder's tongue <i>Ophioglossum californicum</i>	—/—/4.2	Northern and central Sierra Nevada foothills, central and southern coast, Amador, Butte, Merced, Monterey, Mariposa, Orange, San Bernardino*, San Diego, Stanislaus, and Tuolumne Counties, Baja California	Vernal pools margins, moist areas in grassland and chaparral, 200-1,000'	December–May	Moderate
San Joaquin Valley orcutt grass <i>Orcuttia inaequalis</i>	T/E/1B.1	Fresno, Madera, Merced, Stanislaus*, Tulare Counties	Vernal pools from 100 to 2,500 feet	April–September	Moderate
Hairy orcutt grass <i>Orcuttia pilosa</i>	—/—/1B.1	Butte, Glenn, Madera, Merced, Stanislaus, Tehama Counties	Vernal pools from 150 to 650 feet	May–September	Low
Mount Diablo phacelia <i>Phacelia phacelioides</i>	—/—/1B.2	South Coast Ranges from Contra Costa County to San Benito County	Chaparral, oak woodland, adjacent to trails, on rock outcrops and talus slopes, 2,000-3,000'	April–May	None—no suitable habitat known in the area

Table E-1. Continued

Common and Scientific Name	Status ^a : Federal/State/ CNPS	Distribution	Preferred Habitats	Blooming Period	Potential for Occurrence in the General Plan Area ^b
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	E/E/1B.1	Fresno, Madera, Merced, Stanislaus, Sutter, Yuba Counties	Woodland, valley and foothill grassland on clay soils, between 50 and 500 feet	March–April	Moderate
Delta woolly-marbles <i>Psilocarphus brevissimus</i> var. <i>multiflorus</i>	–/–/4.2	Deltaic central valley and San Francisco bay area, Alameda, Napa, Santa Clara, San Joaquin, Solano, Stanislaus, and Yolo Counties	Vernal pools, 30-1,650'	May-June	Moderate
Greene's tuctoria <i>Tuctoria greenei</i>	E/R/1B.1	Butte, Fresno, Glenn, Madera, Merced, Shasta, San Joaquin, Stanislaus, Tehama, Tulare	Vernal pools between 95 and 3,500 feet	May–September	Moderate

Sources: CNDDDB 2006; CNPS 2006

Notes:

- * = Extirpated from this county.
- CNDDDB = California Natural Diversity Database.
- CNPS = California Native Plant Society.

^aStatus explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
- T = listed as threatened under the federal Endangered Species Act.
- = No status definition.

State

- E = listed as endangered under the California Endangered Species Act.
- R = listed as rare under the California Native Plant Protection Act and California Endangered Species Act.
- = No status definition.

California Native Plant Society (CNPS)

- 1A = List 1A species: presumed extinct in California
- 1B = List 1B species: rare, threatened, or endangered in California and elsewhere
- 2 = List 2 species: rare, threatened, or endangered in California, but more common elsewhere
- 3 = List 3 species: plants about which we need more information—a review list
- 4 = List 4 species: plants of limited distribution—a watch list

CNPS Code Extensions:

- .1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2 = fairly endangered in California (20- 80% of occurrences threatened)
- .3 = not very endangered in California (<20% of occurrences threatened or not current threats known)

Table E-1. Continued

Common and Scientific Name	Status ^a : Federal/State/ CNPS	Distribution	Preferred Habitats	Blooming Period	Potential for Occurrence in the General Plan Area ^b
^b Definitions of levels of occurrence likelihood:					
High:	Known occurrence of plant within 5 miles of the project from Natural Diversity Data Base, California Native Plant Society Inventory, or other documents; and suitable habitat and microhabitat conditions present.				
Moderate:	Known occurrence of plant in Stanislaus County, but more than 5 miles from the project, from Natural Diversity Data Base, California Native Plant Society Inventory, or other documents; or suitable habitat conditions present, but suitable microhabitat conditions unlikely to be present or of poor quality.				
Low:	Plant not known to occur in the region from the Natural Diversity Data Base, California Native Plant Society Inventory, or other documents in the vicinity of the project, or plant is known only historically from the region; and habitat conditions of poor quality.				
None:	Plant not known to occur in the region from the Natural Diversity Data Base, California Native Plant Society Inventory, or other documents in the vicinity of the project; and suitable habitat not present in any condition.				

Table E-2. Special-Status Wildlife Species with Potential to Occur in the City of Modesto General Plan Area

Common and Scientific Name	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Invertebrates				
Conservancy fairy shrimp <i>Branchinecta conservatio</i>	E/--	Disjunct occurrences in Solano, Stanislaus, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands	None. Required large pools not known to occur within the General Plan Area. Known to occur in pools located on Mapes Ranch, west of the General Plan Area.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	T/--	Stream side habitats below 3,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant	Moderate. May occur in riparian habitat that supports elderberry shrubs.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	T/--	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	High. Known to occur within the General Plan Area.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	E/--	Shasta County south to Merced County	Vernal pools and ephemeral stock ponds	High. Known to occur within the General Plan Area.
Amphibians				
California red-legged frog <i>Rana aurora draytoni</i>	T/SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.	None. Extirpated from the Central Valley.
California tiger salamander <i>Ambystoma californiense</i>	T/SSC	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy	Low. May have been extirpated from General Plan Area. May occur in grassland areas with vernal pools and seasonal wetlands.
Foothill yellow-legged frog <i>Rana boylei</i>	--/SSC	Occurs in the Klamath, Cascade, north Coast, south Coast, Transverse, and Sierra Nevada Ranges up to approximately 6,000 feet	Creeks or rivers in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge. Usually found near riffles with rocks and sunny banks nearby.	None. No suitable habitat occurs within the General Plan Area.
Western spadefoot <i>Scaphiopus hammondi</i>	--/SSC	Sierra Nevada foothills, Central Valley, Coast Ranges, coastal counties in southern California	Shallow streams with riffles and seasonal wetlands, such as vernal pools in annual grasslands and oak woodlands.	Low. May occur in grassland areas with vernal pools and seasonal wetlands.

Table E-2. Continued

Common and Scientific Name	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Reptiles				
California horned lizard <i>Phrynosoma coronatum frontale</i>	--/SSC	Sacramento Valley, including foothills, south to southern California; Coast Ranges south of Sonoma County; below 4,000 feet in northern California	Grasslands, shrublands, woodlands, and open coniferous forest with sandy or loose soil; requires abundant ant colonies for foraging	Low. Not known to occur within General Plan Area, though may occur in areas with suitable habitat
Giant garter snake <i>Thamnophis couchi gigas</i>	T/T	Central Valley from the vicinity of Burrell in Fresno County north to near Chico in Butte County; has been extirpated from areas south of Fresno	Sloughs, canals, low gradient streams and freshwater marsh habitats where there is a prey base of small fish and amphibians; also found in irrigation ditches and rice fields; requires grassy banks and emergent vegetation for basking and areas of high ground protected from flooding during winter	Low. May have been extirpated from General Plan Area, though may occur in areas with suitable aquatic habitat.
Silvery legless lizard <i>Anniella pulchra pulchra</i>	--/SSC	Along the Coast, Transverse, and Peninsular Ranges from Contra Costa County to San Diego County with spotty occurrences in the San Joaquin Valley	Habitats with loose soil for burrowing or thick duff or leaf litter; often forages in leaf litter at plant bases; may be found on beaches, sandy washes, and in woodland, chaparral, and riparian areas	Moderate. May occur in riparian habitats located in the General Plan Area.
Western pond turtle <i>Clemmys marmorata</i>	--/SSC	Occurs along the central coast of California east to the Sierra Nevada and along the southern California coast inland to the Mojave and Sonora Deserts; range overlaps with that of the northwestern pond turtle throughout the Delta and in the Central Valley	Woodlands, grasslands, and open forests; aquatic habitats, such as ponds, marshes, or streams, with rocky or muddy bottoms and vegetation for cover and food	Moderate. May occur in areas with suitable aquatic habitat located within General Plan Area
Birds				
American peregrine falcon <i>Falco peregrinus anatum</i>	--/E	Permanent resident along the north and south Coast Ranges. May summer in the Cascade and Klamath Ranges and through the Sierra Nevada to Madera County. Winters in the Central Valley south through the Transverse and Peninsular Ranges and the plains east of the Cascade Range	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations	Low. Does not nest within the General Plan Area. May be an occasional winter visitor.
Bald eagle <i>Haliaeetus leucocephalus</i>	--/E	Nests in Siskiyou, Modoc, Trinity, Shasta, Lassen, Plumas, Butte, Tehama, Lake, and Mendocino Counties and in the Lake Tahoe Basin. Reintroduced into central coast. Winter range includes the rest of California, except the southeastern deserts, very high altitudes in the Sierra Nevada, and east of the Sierra Nevada south of Mono County	In western North America, nests and roosts in coniferous forests within 1 mile of a lake, reservoir, stream, or the ocean	Low. Does not nest within the General Plan Area. May be an occasional winter visitor.

Table E-2. Continued

Common and Scientific Name	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Cooper's hawk <i>Accipiter cooperii</i>	--/SSC	Throughout California except high altitudes in the Sierra Nevada. Winters in the Central Valley, southeastern desert regions, and plains east of the Cascade Range	Nests in a wide variety of habitat types, from riparian woodlands and digger pine-oak woodlands through mixed conifer forests	High. May nest in riparian areas located within the General Plan Area
Golden eagle <i>Aquila chrysaetos</i>	--/SSC, FP	Foothills and mountains throughout California. Uncommon nonbreeding visitor to lowlands such as the Central Valley	Nest on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals	Low. Does not nest within the General Plan Areas. May occasionally forage in grassland and pastures within the General Plan Area.
Greater sandhill crane <i>Grus canadensis tabida</i>	--/T	Breeds in Siskiyou, Modoc, Lassen, Plumas, and Sierra Counties. Winters in the Central Valley, southern Imperial County, Lake Havasu National Wildlife Refuge, and the Colorado River Indian Reserve	Summers in open terrain near shallow lakes or freshwater marshes. Winters in plains and valleys near bodies of fresh water	Low. Does not nest in the Central Valley. Only occurs during the winter within the General Plan Area.
Loggerhead shrike <i>Lanius ludovicianus</i>	--/SSC	Resident and winter visitor in lowlands and foothills throughout California. Rare on coastal slope north of Mendocino County, occurring only in winter	Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	High. May nest in areas throughout the General Plan Area.
Northern harrier <i>Circus cyaneus</i>	--/SSC	Occurs throughout lowland California. Has been recorded in fall at high elevations	Grasslands, meadows, marshes, and seasonal and agricultural wetlands	Moderate. May nest in grasslands, pastures, and fresh marsh areas located within General Plan Area.
Sharp-shinned hawk <i>Accipiter striatus</i>	--/SSC	Permanent resident in the Sierra Nevada, Cascade, Klamath, and north Coast Ranges at mid elevations and along the coast in Marin, San Francisco, San Mateo, Santa Cruz, and Monterey Counties. Winters over the rest of the state except at very high elevations	Dense canopy ponderosa pine or mixed-conifer forest and riparian habitats	Low. May nest in riparian areas located within the General Plan Area.
Short-eared owl <i>Asio flammeus</i>	--/SSC	Permanent resident along the coast from Del Norte County to Monterey County although very rare in summer north of San Francisco Bay, in the Sierra Nevada north of Nevada County, in the plains east of the Cascades, and in Mono County; small, isolated populations	Freshwater and salt marshes, lowland meadows, and irrigated alfalfa fields; needs dense tules or tall grass for nesting and daytime roosts	Moderate. May nest in pastures and/or marshes located within General Plan Area.
Suisun song sparrow <i>Melospiza melodia maxillaris</i>	--/SSC	Restricted to the extreme western edge of the Delta, between the cities of Vallejo and Pittsburg near Suisun Bay	Brackish and tidal marshes supporting cattails, tules, various sedges, and pickleweed	None. Though collected in the General Plan Area in the early 1900's, these may have been vagrants. General Plan Area outside of known range.

Table E-2. Continued

Common and Scientific Name	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Swainson's hawk <i>Buteo swainsoni</i>	--/T	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County	Nests in oaks or cottonwoods in or near riparian habitats. Forages in grasslands, irrigated pastures, and grain fields	High. Known to nest within General Plan Area
Tricolored blackbird <i>Agelaius tricolor</i>	--/SSC	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grainfields. Habitat must be large enough to support 50 pairs. Probably requires water at or near the nesting colony	Moderate. May nest in areas with suitable nesting habitat.
Western burrowing owl <i>Athene cunicularia hypugea</i>	--/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	High. Known to nest within General Plan Area
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	C/E	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley-oak riparian habitats where scrub jays are abundant	Low. May be extirpated from General Plan Area. Last known occurrence in Stanislaus Co. was in 1973.
White-tailed kite <i>Elanus leucurus</i>	--/FP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Moderate. May nest in large trees near areas with suitable foraging habitat.
Yellow-breasted chat <i>Icteria virens</i>	--/SSC	Nests locally in coastal mountains and Sierra Nevada foothills, east of the Cascades in northern California, along the Colorado river, and very locally inland in southern California	Nests in dense riparian habitats dominated by willows, alders, Oregon ash, tall weeds, blackberry vines, and grapevines	Low. Mainly found in the foothills but may occur in riparian habitat within the General Plan Area.
Mammals				
Greater western mastiff bat <i>Eumops perotis californicus</i>	--/SSC	Occurs along the western Sierra primarily at low to mid elevations and widely distributed throughout the southern coast ranges. Recent surveys have detected the species north to the Oregon border	Found in a wide variety of habitats from desert scrub to montane conifer. Roosts and breeds in deep, narrow rock crevices, but may also use crevices in trees, buildings, and tunnels. Roost entrances must have vertical faces and be high enough to drop off to take flight.	None. General Plan Area is outside of known range. No suitable habitat occurs within the General Plan Area.

Table E-2. Continued

Common and Scientific Name	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Pacific Townsend's (=western) big-eared bat <i>Corynorhinus townsendii townsendii</i>	--/SSC	Coastal regions from Del Norte County south to Santa Barbara County	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings. Very sensitive to disturbances and may abandon a roost after one onsite visit	Low. May roost in riparian areas located within the General Plan Area.
Pallid bat <i>Antrozous pallidus</i>	--/SSC	Occurs throughout California except the high Sierra from Shasta to Kern County and the northwest coast, primarily at lower and mid elevations	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, yellow pine, redwood, and giant sequoia habitats in northern California and oak woodland, grassland, and desert scrub in southern California. Relies heavily on trees for roosts	Moderate. May roost throughout the General Plan Area.
Riparian (San Joaquin Valley) woodrat <i>Neotoma fuscipes riparia</i>	E/SSC	Historical distribution along the San Joaquin, Stanislaus, and Tuolumne Rivers, and Caswell State Park in San Joaquin, Stanislaus, and Merced Counties; presently limited to San Joaquin County at Caswell State Park and a possible second population near Vernalis	Riparian habitats with dense shrub cover, willow thickets, and an oak overstory	Low. Known to occur in riparian habitat along the Stanislaus River. West of the General Plan Area.
Riparian brush rabbit <i>Sylvilagus bachmani riparius</i>	E/E	Limited to San Joaquin County at Caswell State Park near the confluence of the Stanislaus and San Joaquin Rivers and Paradise Cut area on Union Pacific right-of-way lands	Native valley riparian habitats with large clumps of dense shrubs, low-growing vines, and some tall shrubs and trees	Low. Known to occur in riparian habitat along the Stanislaus River. West of the General Plan Area.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	E/T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	None. General Plan Area is outside of known range. Records for San Joaquin kit fox in Stanislaus Co. include areas west of I-5 and extreme eastern county near La Grange.

Status explanations:

Federal

- E = listed as endangered under the federal Endangered Species Act.
 T = listed as threatened under the federal Endangered Species Act.
 C = candidate species under the federal Endangered Species Act.
 = no listing

State

- E = listed as endangered under the California Endangered Species Act.
 T = listed as threatened under the California Endangered Species Act.
 FP = fully protected under the California Fish and Game Code.
 SSC = species of special concern in California.
 = no listing.

Appendix F. Tuolumne River Regional Park Master Plan
Draft Master Environmental Impact Report Executive
Summary

CHAPTER II. SUMMARY

This summary presents an overview of the environmental review and analysis of the proposed Tuolumne River Regional Park (TRRP) Master Plan, as contained in Chapter IV of this Draft MEIR. A summary of the environmental impacts and mitigation measures identified in the body of this report is found at the end of this section. The significance of each impact after mitigation is noted as follows: (S) significant adverse impact, (LTS) less-than-significant adverse impact, and (SU) significant and unmitigable impact. The summary is organized by the topical sections of this report. Detailed discussions are found within each of the applicable sections contained in Chapter IV.

A. PROJECT UNDER REVIEW

The TRRP Master Plan describes the joint plans by the City of Modesto as Lead Agency, the City of Ceres, and the County of Stanislaus to create a riverfront park along a seven-mile stretch of the Tuolumne River. The project area lies along the north bank of the river between Carpenter Road to Mitchell Road. The project area consists of City of Modesto property as well as unincorporated County property. In addition, non-contiguous portions of the south bank are included within the project. The Master Plan provides a long-range vision for the park including overall guidance for the conservation and improvement of the park. The Master Plan focuses on ecological restoration, enhancement of recreational amenities, and flood protection. Proposed improvements include a children's play area, outdoor amphimeadow, fishing piers, pedestrian and bicycle bridges, a regional sports complex, and parking lots. Other improvements include riparian restoration, creation of stormwater wetlands, and a pedestrian and bicycle trail system. A more detailed description of the project is provided in Chapter III.

B. MITIGATION MEASURES

This Draft MEIR recommends specific mitigation measures that would reduce the impacts identified in Chapter IV to less-than-significant levels to the extent feasible, as summarized in Table II-2 at the end of this chapter. As defined by the CEQA Guidelines (Section 15370), mitigation measures either avoid the identified impact; minimize the impacts by limiting the degree or magnitude of the action and its implementation; rectify the impact by repairing, rehabilitating, or restoring the affected environment; reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action; or compensate for the impact by replacing or providing substitute resources or environments.

The mitigation measures in this Draft MEIR would form the basis of a Mitigation Monitoring Program to be implemented in accordance with Section 21081.6(b) of the State Public Resources Code, if the project is approved.

For subsequent projects within the TRRP Master Plan area, the projects will be required to incorporate all applicable mitigation measures from this MEIR prior to approval. Additional environmental review for subsequent projects may identify additional

II. Summary

mitigation measures; monitoring for the additional mitigation measures would be developed as part of that environmental review.

C. SUMMARY OF UNAVOIDABLE SIGNIFICANT IMPACTS

Chapter IV of this MEIR provides a description of the potential environmental impacts of the proposed project and recommends various mitigation measures to reduce impacts to the extent feasible. Several impacts have been identified where no feasible mitigation measures are available. The impacts involve the following resource areas:

- Traffic and Circulation
- Air Quality
- Noise

These impacts are summarized in the table at the end of this chapter. Unavoidable adverse impacts would require a Statement of Overriding Considerations if the project were to be approved by the City of Modesto, City of Ceres, and County of Stanislaus.

D. SUMMARY OF ALTERNATIVES TO THE PROJECT

CEQA requires the Lead Agency to consider alternatives to the proposed project that meet the project's basic objectives, while avoiding or reducing significant impacts (CEQA Guidelines Section 15126.6). Alternatives to the project are considered in the environmental analysis for each topic area if the recommended mitigation measures would not reduce impacts to a less-than-significant level. The following alternatives are examined in this Draft MEIR:

No Project Alternative. As required by the CEQA Guidelines (Section 15126.6(e)), the No Project Alternative is to be analyzed in an EIR to allow decision-makers to compare the impacts of approving the proposed project with the impact of not approving the proposed project. If the proposed Master Plan were not approved, the land use designation of the property would continue to be Open Space, as specified by the Modesto General Plan. Because a Master Plan would not guide the development of the regional park, it is assumed that the park would continue as it is today - that is, providing limited passive recreation opportunities. Special events would continue to occur to the east of Legion Park, but would not be expanded to the Gateway Parcel. It is also assumed that the amphimeadow and the regional sports complex would not be developed.

Table II-1
Summary of Effects of Project Alternatives

Project Alternatives	No Project Alternative	250-person Amphimeadow Alternative	Passive Recreation/ Sports Complex Alternative
Traffic and Circulation Needs	++	+	++
Degradation of Air Quality	++	=	++
Generation of Noise	++	++	++
Loss of Sensitive Wildlife and Plant Habitat	-	=	=
Disturbance of Archaeological or Historical Sites	=	=	=
Flooding and Water Quality	=	=	=
Exposure to Hazardous Materials	=	=	=
Increased Demand for Fire Services	=	=	=

++ Substantial improvement when compared to the proposed Master Plan

+ Improvement when compared to the proposed Master Plan

= Same as proposed Master Plan

- More adverse effect when compared to the proposed Master Plan

250-person Amphimeadow Alternative. This alternative would be identical to the proposed Master Plan with one exception: the proposed amphimeadow would only accommodate only 250 people, rather than the 3,000 proposed by the Master Plan. This reduction in size would make it feasible to have presentations at the amphimeadow without the use of amplification. This alternative would avoid this significant and unavoidable noise impact identified for the proposed Master Plan in Chapter IV of this MEIR (Impact Noise-2).

Passive Recreation/Sports Complex Alternative. In this alternative, no special events would occur at the Gateway Parcel and the amphimeadow would not be developed. Special events would continue to occur to the east of Legion Park, similar to existing conditions. Because the Regional Sports Complex is not expected to result in any significant and unavoidable impacts, this alternative continues to integrate this use. However, implementation of the mitigation measures associated with the regional sports complex, as recommended in this MEIR, would continue to be required to reduce potential impacts associated with this use to a less-than-significant level.

Table II-1 provides a summary of the alternatives analysis that is contained in Chapter VII. The Passive Recreation/Sports Complex Alternative would avoid all of the significant

II. Summary

and unavoidable impacts identified in this MEIR for the TRRP Master Plan. For this reason, this alternative is considered the environmentally superior alternative.

E. SUMMARY OF PROJECT IMPACTS AND MITIGATION

According to the CEQA Guidelines, a "significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15382).

Implementation of the TRRP Master Plan has the potential to generate environmental impacts, as summarized in Table II-2. This table lists the environmental impacts of the proposed project, the level of significance before mitigation, recommended mitigation measures, and notes the level of impact significance after implementation of the mitigation measures. Impacts are numbered in accordance with the environmental topic to which they pertain and in the order in which they appear within each MEIR section. Please see Chapter IV of this MEIR for more information on the potentially significant impacts of the proposed project.

**Table II-2
Summary of Significant Impacts and Mitigation Measures**

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Traffic and Circulation Needs			
Impact Traffic-1: The increase in traffic associated with special events at the amphimeadow would exceed the City of Modesto's LOS "D" standard within the project vicinity. Because this impact would be associated with amphimeadow visitors arriving and departing special events, this impact would be short-term. However, this short-term increase in traffic would create a noticeable increase in traffic congestion above typical patterns, which could create substantial annoyance by area residents or commuters. This is considered a significant impact.	S	<p>Mitigation Measure Traffic-1: Pursuant to Public Resources Code Section 21157(b)(3), implementation of special events at the amphimeadow is identified as a "subsequent project" in this MEIR. When detailed implementation plans are developed for these projects and activities, additional environmental review will be required. As part of this assessment, the overall traffic impact from these events shall be determined. At that time, a traffic management plan shall be created which identifies ways to reduce congestion during the events. The traffic management plan should identify the following:</p> <ul style="list-style-type: none"> • Routes that will be used to access the park by visitors, emergency vehicles and by staff; • Applicable signage to inform the public of access routes and advance message signing located far enough from the site to allow the public to select alternative routes and avoid the area of the event; • Methods and duration of protection for pedestrian crossings; and • Location and responsibilities of traffic control personnel and duration of their activities. Locations for uniformed traffic control officers and event volunteers should be noted. <p>Implementation of this mitigation measure would reduce traffic impacts associated with the amphimeadow, however, for a short time immediately before and after an event, congestion would still occur. For this reason, this impact is considered significant and unavoidable.</p>	SU
Impact Traffic-2: The increase in traffic associated with large special events in the Gateway Parcel would exceed the City of Modesto's LOS "D" standard within the project vicinity. Because this impact would be associated with visitors arriving and departing special events, this impact would be short-term. However, this short-term increase in traffic would create a noticeable increase in traffic congestion above typical patterns, which could create substantial annoyance by area residents or commuters. This is considered a significant impact.	S	<p>Mitigation Measure Traffic-2: Pursuant to Public Resources Code Section 21157(b)(3), implementation of large special events at the Gateway Parcel is identified as a "subsequent project" in this MEIR. When detailed implementation plans are developed for these projects and activities, additional environmental review will be required. As part of this assessment, the overall traffic impact from these events shall be determined. At that time, a traffic management plan shall be created which identifies ways to reduce congestion during the events and include the elements identified in Mitigation Measure Traffic-1.</p>	SU

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		Implementation of this mitigation measure would reduce traffic impacts associated with large special events, however, for a short time immediately before and after an event, congestion would still occur. For this reason, this impact is considered significant and unavoidable.	
Impact Traffic-3: Parking demand for the Regional Sports Complex during concurrent and consecutive games, such as scheduled during a tournament, would exceed the parking capacity in the Carpenter Road Area. This is a potentially significant impact.	S	<p>Mitigation Measure Traffic-3: Pursuant to Public Resources Code Section 21157(b)(3), implementation of the Regional Sports Complex is identified as a "subsequent project" in this MEIR. When detailed implementation plans are developed for the Regional Sports Complex, additional environmental review will be required. As part of this assessment, the overall parking requirements of the facilities shall be determined. At that time, a parking management plan shall be created which matches the use of the site to the available parking supply. The following measures may be included in the parking management plan:</p> <ul style="list-style-type: none"> (a) Park managers could schedule events in a manner that minimizes concurrent parking demand. (b) If required, identify overflow parking lots and appropriate signage directing visitors to designated lots. While the balance of the TRRP parking supply is not particularly close to the Sports Complex, Robertson Elementary School is located on the north side of Robertson Road. Saturday use of school parking could be feasible. (c) If necessary, additional parking may be required at the Sports Complex, or the number of fields may need to be reduced to effectively balance parking demand. <p>No overflow into the adjacent neighborhoods shall be allowed. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.</p>	LTS
Impact Traffic-4: An event attracting 3,000 persons to the amphimeadow would exceed the parking capacity in the Gateway Parcel. Overflow parking could displace industrial and commercial employee or patron parking, and could also result in short-term traffic congestion resulting from people looking for additional parking. This is considered a potentially significant impact.	S	<p>Mitigation Measure Traffic-4: Pursuant to Public Resources Code Section 21157(b)(3), implementation of special events at the amphimeadow is identified as a "subsequent project" in this MEIR. When detailed implementation plans are developed for these projects and activities, additional environmental review will be required. As part of this assessment, the overall parking requirements of the facilities shall be determined. At that time, an event parking management plan shall be created.</p>	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>The parking management plan shall identify the locations of off-site parking sufficient for the prescribed event, note the location of signing to direct visitors to designated lots, the number and location of parking management personnel, and coordinate parking with traffic/access management activities. During special events it would be possible to provide coordinated bus service from downtown parking lots and garages to the Gateway Parcel. In addition, during the off-season, the City of Modesto may develop agreements with property owners to use employee parking facilities for special event overflow parking. To ensure that satellite parking areas are successful, information regarding the availability of on-site and off-site parking would need to be conveyed to approaching motorists on a "real time" basis. Signs noting "lots full" and directing motorists to ancillary parking areas would be needed.</p> <p>No overflow into the adjacent neighborhoods shall be allowed. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.</p>	
<p>Impact Traffic-5: Implementation of the TRRP Master Plan could result in significant off site parking impacts when large special events are held. Events associated with Cinco De Mayo and other annual festivals are likely to result in parking demands that extend well beyond the limits of the TRRP. Overflow parking could displace industrial and commercial employee or patron parking, and could also result in short-term traffic congestion resulting from people looking for additional parking. This is a significant impact.</p>	S	<p>Mitigation Measure Traffic-5: Pursuant to Public Resources Code Section 21157(b)(3), implementation of large special events at the Gateway Parcel is identified as a "subsequent project" in this MEIR. When detailed implementation plans are developed for these projects and activities, additional environmental review will be required. As part of this assessment, the overall parking requirements of the facilities shall be determined. At that time, an event parking management plan shall be created to reduce parking impacts on the surrounding neighborhood during large special events.</p> <p>Development of an events parking management plan will be needed when the plans for the Gateway Parcel are finalized in order to make optimal use of satellite parking facilities, transit opportunities, etc, and to minimize impacts into adjoining areas. The parking management plan should include the elements identified in Mitigation Measure Traffic-4.</p> <p>However, even with implementation of the event parking management plans there will likely be significant traffic impacts in the immediate vicinity of TRRP when large special events are staged. With event attendance reaching 15,000, there would not be a feasible measure available to ensure that employees and patrons of the surrounding neighborhoods would not be displaced. For this reason, this is a significant and unavoidable impact.</p>	SU

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Degradation of Air Quality			
<p>Impact Air-1: The Master Plan does not specify feasible SJVAPCD construction control mitigation measures as part of the projects' construction activities. Because construction significance is determined by means of whether SJVAPCD construction mitigation measures are implemented, construction emissions would be considered a short-term significant air quality impact.</p>	S	<p>Mitigation Measure Air-1: The following mitigation measures shall be implemented to reduce short-term, construction-generated emissions:</p> <ul style="list-style-type: none"> (a) All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover. (b) All on-site unpaved roads and off-site, unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant. (c) All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking. (d) When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained. (e) All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Blower devices shall not be used.) (f) Following the addition of materials to, or the removal of materials from, the surfaces of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant. (g) On-site vehicle speeds on unpaved roads shall be limited to 15 mph. (h) Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than one percent. (i) Wheel washers shall be installed for all exiting trucks and equipment, or wheels shall be washed to remove accumulated dirt prior to leaving the site. 	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>(j) Excavation and grading activities shall be suspended when winds exceed 20 mph.</p> <p>(k) Areas subject to excavation and grading at any one time shall be limited to the fullest extent possible.</p> <p>(l) On-site equipment shall be maintained and properly tuned in accordance with manufacturers' specifications.</p> <p>(m) When not in use, on-site equipment shall not be left idling.</p> <p>The SJVAPCD has determined that implementation of the above mitigation measures would reduce short-term construction-generated emissions to less-than-significant levels.</p>	
<p>Impact Air-2: Events occurring at the Gateway Parcel, such as special events and concerts, could result in potential increases in carbon monoxide concentrations, or "hot spots," in excess of State or federal air quality standards. These carbon monoxide concentrations could negatively impact sensitive receptors, which may be located in the project vicinity or walking to and from the special events. This impact is potentially significant impact.</p>	S	<p>Mitigation Measure Air-2: When special events, including concerts, occur at the Gateway Parcel, the City of Modesto shall implement a traffic and parking management control plan, as recommended in mitigation measures contained in Chapter IV-A of this MEIR. The smooth flow of traffic would decrease the potential for carbon monoxide "hot spots," which could occur if vehicles are idling for long periods of time in high concentrations. However, it is unlikely that traffic congestion would be decreased enough to reduce the potential for high carbon monoxide concentrations when people are gathering or leaving large special events. For this reason, this is considered a significant and unavoidable impact for special events and concerts at the Gateway Parcel.</p>	SU
Generation of Noise			
<p>Impact Noise-1: Noise generated by activities conducted at the proposed sports complex could result in a noticeable increase (i.e., 3 dBA, or greater) in ambient noise levels at nearby residences that could potentially exceed the City's "normally acceptable" threshold of 60 dBA CNEL. This increase in noise would be attributable to noise from spectators and players, and amplified announcing that could accompany the games. In consideration of the potential for the sports complex to generate significant increases in ambient noise levels at nearby sensitive receptors (i.e., residences), this impact has been identified as potentially significant.</p>	S	<p>Mitigation Measure Noise-1: Pursuant to Public Resources Code Section 21157(b)(3), implementation of the Regional Sports Complex is identified as a "subsequent project" in this MEIR. When a detailed implementation plan is developed for this project, additional environmental review will be required. As part of this assessment, a detailed noise analysis shall be conducted. The following shall be required as part of the final noise mitigation developed for the project:</p> <p>(a) Activities at the proposed sports complex shall be limited to between the hours of 7:00 a.m. and 9:00 p.m. on weekdays, and between the hours of 9:00 a.m. and 9:00 p.m. on weekends.</p>	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		<p>(b) An acoustical engineer with experience in the prediction and mitigation of outdoor sound levels shall be consulted prior to design and construction of the proposed sports complex. The acoustical design documentation shall demonstrate that the proposed sports complex would not result in a noticeable increase (i.e., 3 dBA, or greater) in ambient noise levels at nearby residences.</p> <p>(c) If the acoustical analysis determines that regular activities at the sports complex would result in a 3 dBA or greater increase in ambient noise levels, noise control measures shall be required, such as noise barriers, requiring sound systems to be directed away from residences and other sensitive receptors, or disallowing amplified announcing. It shall be demonstrated that implementation of feasible noise control measures would reduce increases in noise levels at surrounding residences to less than 3 dBA.</p> <p>Implementation of the above measures would ensure that a noticeable increase in noise would not occur at nearby sensitive land uses, and would reduce this potential impact to a less-than-significant level.</p>	
<p>Impact Noise-2: Noise associated with events at the amphimeadow could reach approximately 74 dBA at the nearest residential land uses (assuming amplification of community events), which would exceed the City's "normally acceptable" threshold of 60 dBA CNEL. This noise level would be a noticeable increase (i.e., 3 dBA, or greater), and would be considered a significant impact.</p>	S	<p>Mitigation Measure Noise-2: An acoustical engineer with experience in the prediction and mitigation of outdoor theater sound levels shall be consulted prior to design and construction of the proposed amphimeadow to identify and incorporate all feasible mitigation measures available for reducing noise-related impacts to nearby noise-sensitive receptors. Measures may include, but are not limited to, construction of noise barriers, and limitations on speaker orientation, noise-generation levels, or hours of activity. Implementation of the above mitigation measure would help to reduce noise generated by activities associated with the amphimeadow. However, noticeable increases (i.e., 3 dBA or greater) in ambient noise levels at nearby noise-sensitive receptors would still be anticipated as a result of music and performance amplification, which would be required with 3,000 people in attendance, as proposed. As a result, this impact is considered significant and unavoidable.</p>	SU

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact Noise-3: The crowds associated with special events held during the daytime would not cause a significant increase in ambient noise levels at nearby residences. In addition, the resultant increase in ambient noise levels at nearby residences would not be anticipated to exceed the City's "normally acceptable" noise standard of 60 dBA CNEL. However, the use of amplified sound systems or special events occurring during the nighttime could potential result in a significant increase in the ambient noise levels at nearby residences. This is a potentially significant impact.	S	Mitigation Measure Noise-3: Special events shall be limited to between the hours of 7:00 a.m. and 9:00 p.m. on weekdays, and between the hours of 9:00 a.m. and 9:00 p.m. on weekends. This would reduce potential noise impacts during the nighttime. Implementation of this mitigation measure would reduce noise impacts associated with large special events, however, the use of amplified sound systems during special events could result in a significant increase in the ambient noise levels at nearby residences. For this reason, this impact is considered significant and unavoidable.	SU
Loss of Sensitive Plant and Wildlife Habitat			
Impact Bio-1: The negative impacts to riparian habitats would be temporary during construction activities and implementation of the TRRP Master Plan would result in a net increase in riparian habitat overtime, once riparian vegetation in replanted areas have been re-established. However, the short-term loss of existing riparian habitat would be considered a significant impact because this habitat has been identified as a sensitive natural plant community by federal, State, and local agencies.	S	Mitigation Measure Bio-1: To minimize disturbance to riparian habitat outside of the proposed area of disturbance, the following measures shall be implemented: (a) For any TRRP Master Plan project, prior to any grading or tree removal, riparian habitat outside of the proposed work areas will be protected by installing orange barrier fencing around habitat to be preserved and restricting vehicular or mechanical use of equipment in these areas. The project proponent shall retain a qualified biologist to serve as a compliance monitor and to ensure that all mitigation measures pertaining to riparian habitat protection are properly implemented. (b) Prior to project implementation, a Section 404 permit shall be obtained from USACE and a Section 1600 Streambed Alteration Agreement shall be obtained from CDFG. Additional mitigation for impacts to riparian areas will be developed through consultation with USACE and CDFG. A detailed riparian restoration plan shall be submitted to USACE as part of the 404 permit application. The plan must be approved by USACE prior to project implementation. Mitigation monitoring shall be conducted annually by a qualified biologist for 5 years or until the success criteria are met. Annual monitoring reports shall be submitted to USACE and CDFG. Implementation of the above mitigation measures in consultation with USACE and CDFG would ensure that impacts to riparian habitat are less-than-significant.	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
<p>Impact Bio-2: The project area includes jurisdictional Waters of the U.S. (i.e., marsh and riverine habitats) subject to the regulatory authority of USACE. Any construction or restoration activity that occurs in or adjacent to the Tuolumne River could potentially impact these areas. Although most of the jurisdictional Waters of the U.S. are located between the banks of the Tuolumne River and within the Dry Creek channel, it is possible that additional jurisdictional areas are located outside of the channel. All adverse impacts to jurisdictional Waters of the U.S. would be considered significant.</p>	S	<p>Mitigation Measure Bio-2: The following mitigation measures shall be implemented to ensure impacts to Waters of the U.S. are less-than-significant.</p> <ul style="list-style-type: none"> (a) For any TRRP Master project, prior to grading or tree removal, a qualified biologist shall make a determination whether potential jurisdictional Waters of the U.S., including wetlands are present in the project area. (b) If potential jurisdictional Waters of the U.S., including wetlands, are present, a determination shall be made through the formal Section 404 wetland delineation process if any jurisdictional areas would be filled or otherwise disturbed as a result of the project. Authorization of a Section 404 and Section 10 permit shall be secured from USACE and a Section 1600 agreement shall be secured from CDFG, as appropriate. (c) As part of the permitting process, mitigation for impacts to jurisdictional Waters of the U.S., will be identified and implemented. Waters of the U.S. will be replaced or rehabilitated on a "no-net-loss" basis in accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by methods agreeable to USACE. (d) For all projects with the potential to effect jurisdictional Waters of the U.S., all grading plans will include adequate setback for waters to be preserved. Measures to minimize erosion and runoff into seasonal and perennial Waters of the U.S. will be prepared for all projects covered by the Master Plan. Appropriate runoff controls such as berms, storm gates, detention basins, overflow collection areas, filtration systems, and sediment traps shall be implemented to control siltation and the potential discharge of pollutants into preserved drainages. 	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact Bio-3: Potential impacts to fish and fish habitat resulting from implementation of the TRRP Master Plan could include both adverse and beneficial impacts. Impacts to most fish species would be less-than-significant because the impacts are short-term and no important habitat for these species would be permanently altered. However, any adverse impacts to steelhead, fall-run chinook salmon, and Sacramento splittail would be considered potentially significant because these species are all federally listed. Impacts to steelhead, fall-run chinook salmon, and Sacramento splittail are considered potentially significant because the project would result in the short-term loss and disturbance of habitat for these species.	S	<p>Mitigation Measure Bio-3: The following mitigation shall be implemented for any project covered by the TRRP Master Plan that has the potential to affect perennial aquatic habitat.</p> <p>(a) The operation of heavy equipment in the active river channel shall not occur. Temporary sediment settling basins and structures such as sediment fencing or straw bales shall be used to prevent sediment-laden runoff from entering the river channel. River-adjacent construction activities shall occur during summer months when flows are low and rain is unlikely. Construction of bridges and near-river facilities shall be conducted during the summer when flows are low and rain is unlikely or as otherwise appropriate would avoid impacts during fish migrations and sensitive life stages.</p> <p>(b) The project proponent shall consult with NMFS and USFWS under Section 7 of ESA to determine a future course of action, including whether incidental take authorization is needed. Through consultation and negotiations with the federal agencies, appropriate mitigation and avoidance measures will be determined and implemented.</p> <p>Implementation of the above mitigation measures in consultation with NMFS and USFWS would ensure that impacts to sensitive fish species are less-than-significant.</p>	LTS
Impact Bio-4: Because the project could potentially remove elderberry bushes, which are habitat occupied by the valley elderberry longhorn beetle, this is considered a potentially significant impact.	S	<p>Mitigation Measure Bio-4: The following measures shall be implemented to ensure that impacts to the valley elderberry longhorn beetle are less-than-significant:</p> <p>(a) Prior to any construction activity or grading for any Master Plan project, a qualified biologist shall conduct a survey to determine the number and location of elderberry shrubs on the project site.</p> <p>(b) If no elderberry shrubs are found on the project site or if all elderberry shrubs will be avoided by at least 100 feet, impacts to the valley elderberry longhorn beetle will be less-than-significant and no further mitigation is necessary.</p> <p>(c) If elderberry shrubs are found within the project area, the project proponent will consult with USFWS under Section 7 of ESA to determine a future course of action, including whether incidental take authorization is needed. Through consultation and negotiations with USFWS, appropriate mitigation and avoidance measures will be determined and implemented.</p>	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact Bio-5: Raptor nests could be affected by the removal of large trees and nearby construction activity during the breeding season (February 1 to August 31). This impact is considered potentially significant.	S	<p>Mitigation Measure Bio-5: Implementation of the following mitigation measures would ensure that impacts to nesting raptors are less-than-significant:</p> <ul style="list-style-type: none"> (a) If construction is proposed during the raptor nesting season (1 February to August 31), a focused survey for raptor nests shall be conducted by a qualified biologist to identify active nests within 1/4 mile of the project area. The survey shall be conducted no less than 14 days and no more than 30 days prior to the beginning of construction and shall be within the nesting season. (b) If nesting raptors are found during the focused survey, no construction shall occur within 500 feet of an active nest until the young have fledged (as determined by a qualified biologist), without prior approval by CDFG. Construction within 500 feet may be permitted if a nest monitor is present to ensure that disturbance to the nesting raptors is minimized to the maximum extent practicable. 	LTS
Disturbance of Archaeological or Historical Sites			
Impact CR-1: Project grading and earthmoving activities could disturb previously undiscovered historic resources or archaeological sites. This is a potentially significant impact.	S	<p>Mitigation Measure CR-1: Construction personnel shall be instructed about the potential for discovery of unknown cultural resources, and the need for proper and timely reporting of such findings. If previously undiscovered historic or unique archaeological resources (including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable soils, glass, metal, ceramics, wood or similar debris) are discovered, the following measures shall be implemented to ensure that impacts to these resources are less-than-significant.</p> <ul style="list-style-type: none"> (a) Work shall halt within 100 feet of the discovery until a professional archaeologist certified by the Registry of Professional Archaeologists (RPA) has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary. (b) If the discovery is Native American, federally-recognized tribes in the county shall be consulted about the find to incorporate their suggestions for mitigation or protection. (c) If the discovery is historic, archival research may be necessary by a qualified historian. 	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
		(d) If the project may alter the archaeological integrity and data values of the discovery, it will be evaluated for the California Register. If the resource is eligible for the California Register of Historical Resources, data recovery measures shall be implemented by a professional meeting the Secretary of Interior's Professional Qualifications Standards.	
Impact CR-2: Project grading and earthmoving activities could disturb previously undiscovered human remains. This is a potentially significant impact.	S	<p>Mitigation Measure CR-2: Construction personnel shall be instructed about the potential for discovery of human remains, and the need for proper and timely reporting of such finds. In the event that such remains are encountered, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains, in accordance with State law. The Stanislaus County coroner would be contacted and appropriate measures implemented. These actions would be consistent with the State Health and Safety Code Section 7050.5, which prohibits disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery.</p> <p>The County Coroner, upon recognizing the remains as being of Native American origin, shall contact the Native American Heritage Commission within 24 hours. The Commission has various powers and duties to provide for the ultimate disposition of any Native American remains, as does the assigned Most Likely Descendant.</p> <p>Implementation of this mitigation measure would reduce this impact to a less-than-significant level.</p>	LTS
Flooding and Water Quality			
Impact Hydro-1: Construction of the Regional Sports Complex and Nature Interpretive Center in the 100-year floodplain could increase water surface elevations during a 100-year flood. This is considered a potentially significant impact.	S	<p>Mitigation Measure Hydro-1: The ultimate design of the Regional Sports Complex and the Nature Interpretive Center shall be developed in accordance with local ordinances governing construction within the floodplain. Special attention shall be given to flood proofing proposed structures to withstand flooding and to minimize flood damages. Final design should include a detailed drainage plan to alleviate flooding and drain standing water once floodwaters have receded. The final design plans shall be developed in accordance with standard hydrologic and hydraulic engineering practices to ensure that the proposed development does not result in any increase in flood damages within the community during the occurrence of the base flood. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.</p>	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact Hydro-2: The proposed grading in the Carpenter Road, Gateway Parcel, and Legion Park areas could increase water surface elevations during a 100-year flood. This is considered a potentially significant impact.	S	Mitigation Measure Hydro-2: Detailed grading plans shall be developed in accordance with standard hydrologic and hydraulic engineering practices to ensure that the proposed grading does not result in any increase in base flood water surface elevations. The grading design shall not significantly increase river flow velocities. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LTS
Impact Hydro-3: Construction of overlook structures, fishing piers, boat docks, and any other structures within the floodway could increase water surface elevations during flood events and could cause localized bank erosion. This is considered a potentially significant impact.	S	Mitigation Measure Hydro-3: The following mitigation measures shall be implemented to avoid hazards related to construction in the floodway: (a) Once detailed plans have been developed for the proposed structures, hydrologic and hydraulic analyses shall be performed in accordance with standard engineering practices to ensure that the proposed structures do not result in any increase in base flood water surface elevations. (b) Scour analyses shall be performed once detailed plans have been developed for the proposed structures. If necessary, erosion control measures shall be incorporated in the final design. (c) Structures shall be designed to allow adequate open space to pass flow and floating debris traveling downstream. (d) Structures shall be designed to withstand the forces of floodwaters to minimize damages during flood events. Implementation of these mitigation measures would reduce this impact to a less-than-significant level.	LTS
Impact Hydro-4: The proposed riparian planting scheme may increase the hydraulic roughness of the channel and overbank areas and could lead to increases in the water surface elevations. This is considered a potentially significant impact.	S	Mitigation Measure Hydro-4: Detailed riparian planting schemes shall be developed in accordance with standard hydrologic and hydraulic engineering practices to ensure that the proposed structures do not result in any increase in base flood water surface elevations. The riparian planting scheme shall be designed to prevent creating floating debris dams during flood events that would impact flood conveyance. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact Hydro-5: The proposed amphimeadow is likely to suffer frequent flooding inundation. This is considered a potentially significant impact.	S	Mitigation Measure Hydro-5: The elevation of the amphimeadow shall be raised to reduce the frequency of inundation. Detailed grading and construction plans for the amphimeadow shall be developed in accordance with standard hydrologic and hydraulic engineering practices to ensure that construction of the amphimeadow would not result in any increase in water surface elevations. Water shear and scour analyses shall be also be performed and if necessary surface protection shall be provided for the banks and surrounding area to prevent scour and erosion. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LTS
Impact Hydro-6: Construction of the Pedestrian Bridge Over Dry Creek. Construction of the proposed pedestrian bridge on Dry Creek could increase water surface elevations during flood events and could cause localized bank erosion and scour.	S	Mitigation Measure Hydro-6: The following mitigation measures shall be implemented to avoid potential flood hazards caused by the proposed pedestrian bridge: (a) Construction plans shall be developed in accordance with standard hydrologic and hydraulic engineering practices to ensure that the proposed pedestrian bridge would not result in any increase in base flood water surface elevations during the base flood. (b) The pedestrian bridge shall have adequate clearance above the base floodwater surface elevation so as not to impede flow or trap floating debris. (c) The pedestrian bridge shall be designed to withstand the forces of floodwaters to minimize damages during flood events. (d) Scour analyses of the bridge piers and abutments shall be performed once detailed plans have been developed for the proposed bridge. If necessary, erosion control measures shall be incorporated into the final design. Implementation of these mitigation measures would reduce this impact to a less-than-significant level.	LTS
Impact Hydro-7: Changes in channel and overbank configuration may cause increased localized velocities, which could lead to scour and erosion occurring at existing bridge locations.	S	Mitigation Measure Hydro-7: Once detailed grading plans have been developed, scour analyses of bridge piers and abutments shall be performed in accordance with standard engineering practices to determine if changes in channel and overbank configuration are likely to cause scour and erosion at existing bridge locations. If necessary, armoring and erosion control measures shall be installed at existing bridge locations. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Exposure to Hazardous Materials			
Impact HazMat-1: Development or grading of areas within the Gateway Parcel could expose construction workers and/or the public to hazardous materials from potential soil and groundwater contamination from past spills or releases at the Breshears facility during and/or following redevelopment. This is considered a potentially significant impact.	S	Mitigation Measure HazMat-1: Prior to ground disturbance on the Gateway Parcel, the RWQCB shall be contacted to identify the status of the Breshears investigations and remediation. If no additional investigations have been conducted, soil and groundwater sampling in the areas adjacent to the Breshears facility may be required to identify impacts to the Gateway Parcel, if any, from the Breshears operation. If a significant likelihood of contamination is revealed, a Phase II and/or III assessment may be required, which would involve soil and/or water quality sampling. The RWQCB shall direct the appropriate action for the Gateway Parcel. All RWQCB recommended measures shall be implemented prior to ground disturbance or development at the Gateway Parcel. Completion of this measure shall be a condition of approval for any grading, demolition, or building permit within the Gateway Parcel. Implementation of this measure would ensure that potential impacts related to existing soil and groundwater contamination in the Gateway Parcel adjacent to the Breshears facility are reduced to a less-than-significant level.	LTS
Impact HazMat-2: Development or grading of areas within the former ranch complex area of the Gateway Parcel could expose construction workers and/or the public to hazardous materials during and/or following redevelopment. This is considered a potentially significant impact.	S	Mitigation Measure HazMat-2: A site investigation shall be conducted by a qualified professional (e.g., a California registered environmental assessor) to identify any potential chemical impacts to soil in the former ranch complex. If the results of the investigation(s) indicated the presence of hazardous materials, site remediation may be required by the applicable State or local regulatory agencies. Implementation of this measure would ensure that potential impacts related to existing soil contamination in the former ranch complex area are reduced to a less-than-significant level.	LTS
Impact HazMat-3: Potential health risks could result from placement of sensitive land uses, such as children's playgrounds, in former agricultural areas due to residual concentrations of agricultural chemicals in the soil. This is considered a potentially significant impact.	S	Mitigation Measure HazMat-3: A Phase II assessment including soil sampling, shall be performed to assess agricultural chemicals in areas designated for children's playgrounds and other sensitive land uses. If chemicals are present in soils at concentrations at or above applicable regulatory agency action levels for the intended land use, remediation requirements in accordance with State and federal regulations would be required. Implementation of this measure will ensure that this impact is reduced to a less-than-significant level.	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

Significant Impact	Significance Before Mitigation	Mitigation Measures	Significance With Mitigation
Impact HazMat 4: Development or redevelopment of properties within the TRRP area (exclusive of the Gateway Parcel, which has been the subject of a Phase I analysis) could expose construction workers and/or the public to hazardous materials from existing soil and groundwater contamination during and/or following redevelopment. Sensitive receptors located near the development could be affected by releases of hazardous materials. This is considered a potentially significant impact.	S	Mitigation Measure HazMat-4: A Phase I Environmental Site Assessment (ESA) shall be conducted in accordance with American Society for Testing and Materials (ASTM) guidelines prior to the approval of development for any parcel within the TRRP Master Plan area. The Phase I ESA will include the findings of a site reconnaissance and investigation of prior uses of the property that could have resulted in contamination. If a significant likelihood of contamination is revealed by the Phase I ESA, a Phase II and/or III assessment may be required, which would involve soil and/or water quality sampling and could result in remediation requirements in accordance with State and federal regulations. Implementation of this measure will ensure that this impact is reduced to a less-than-significant level.	LTS
Increased Demand for Fire Services			
Impact Fire-1: Inadequate emergency access to TRRP is considered a potentially significant impact.	S	Mitigation Measure Fire-1: The MFD and SCFPD shall be consulted prior to finalization of the detailed site plans to ensure adequate emergency vehicle access is provided. Emergency access requirements of MFD and SCFPD shall be accommodated.	LTS
Impact Fire-2: The increased risk of loss, injury or death involving wildland fires due to increased visitation to open space grasslands and riparian forests adjacent to urban areas is considered a potentially significant impact.	S	Mitigation Measure Fire-2: The Modesto Parks and Recreation Department shall create and implement a vegetation management program targeted toward fire prevention and control. This program would expand upon the fuel reduction and management plan outlined in the TRRP Master Plan. The TRRP vegetation management program shall: <ul style="list-style-type: none"> • Characterize existing and proposed vegetation fuels, • Identify potential ignition sources and locations, • Identify assets at risk in case of a fire, • Identify specific maintenance measures to reduce fuel loads, • Identify buffer zones between residential structures on adjacent developed parcels and vegetation in the TRRP, and • Make recommendations for fire resistant plantings. Implementation of this mitigation measure would reduce this impact to a less-than-significant level.	LTS

S = Significant; LTS = Less than Significant; SU = Significant and Unavoidable

II. Summary

This page is intentionally left blank.

**Appendix G. Designated Landmark Preservation Sites and
Photographs of Carey & Company Sites**

**Carey & Co. Inc.
Numbers 1, 2, 3
Rated Sites
in Downtown Modesto**

Carey and Co. Inc. conducted a study of all of the structures in the Downtown Redevelopment Area to determine whether they had any historical interest. Those sites rated 1, 2, or 3 were considered having historical interest. This addendum to the study presents a description and photograph of those sites.

Table of Contents

	Page
1. Location Map of City of Modesto Landmark Sites	2
2. Number 1 Rated Sites	4
3. Number 2 Rated Sites	8
4. Number 3 Rated Sites	9

Location Map

of

City of Modesto
Landmark Sites

LANDMARK PRESERVATION SITES



Number 1

Rated Sites

Site: Southern Pacific Transportation Center

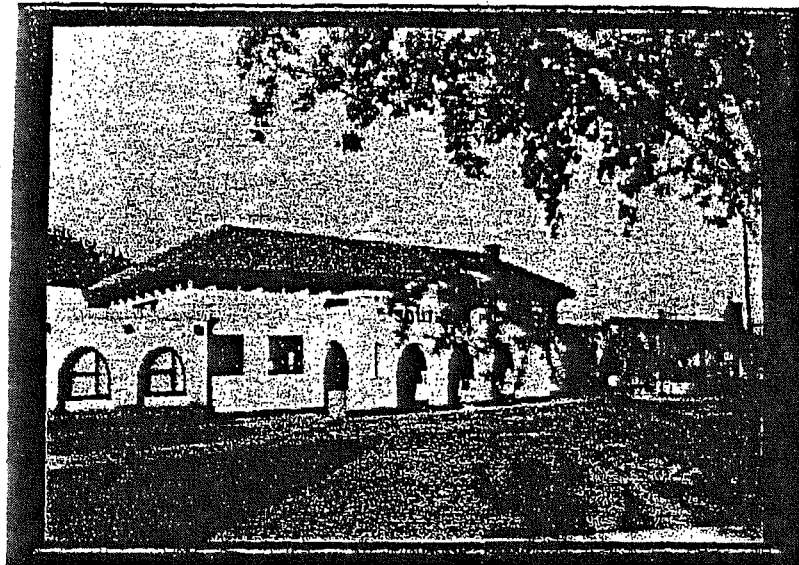
Address: 9th and J Streets
Modesto, CA

Year Built: (1915)

Rating: 1

Modesto
Landmark
Site No: 19

Description: The Southern Pacific Station displays the simplicity of form characteristic of a 1915 Mission Style railroad depot. The rectangular, one-story stucco building has a low hip roof with boxed cornices and heavy brackets. At each side of the building is a flat roofed extension with projecting beams and windows set in arched openings. These extensions wrap around the building and meet on the railroad trackside of the depot where the walls continue upward forming a parapet above an arcade. A pair of small bell towers flanks the parapet.



Site: McHenry Mansion

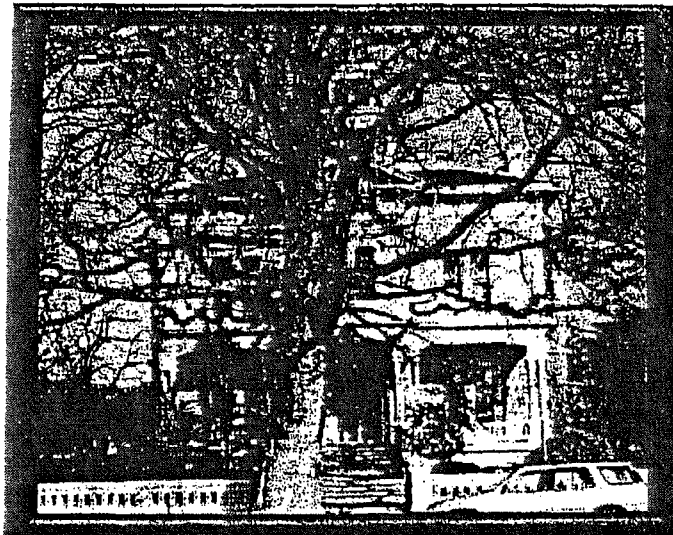
Address: 906 15th Street
Modesto, CA 95354

Year Built: 1883

Rating: 1

Modesto
Landmark
Site No: 1

Description: Robert McHenry, owner of the Bald Eagle Ranch and president of the newly incorporated First National Bank of Modesto built this home in 1883. This Italianate style mansion is a rectangular, 2-1/2-story building with V-groove rustic siding, and a truncated hip roof with six chimneys. Pronounced moldings and details accentuate the formal balance of the house. Rising from the center of the roof is an octangular cupola, which has eight windows. The house had 23 rooms, was entirely hand constructed and became a showplace in the small farming community of less than 2,000 residents. Julio and Aileen Gallo purchased the home from the estate of L.W. Crabtree in 1976 for the sum of \$150,000 and donated it to the City of Modesto.



Site: Federal Building (Post Office)

Address: 1125 I Street
Modesto, CA 95354

Year Built: 1932 - 1933

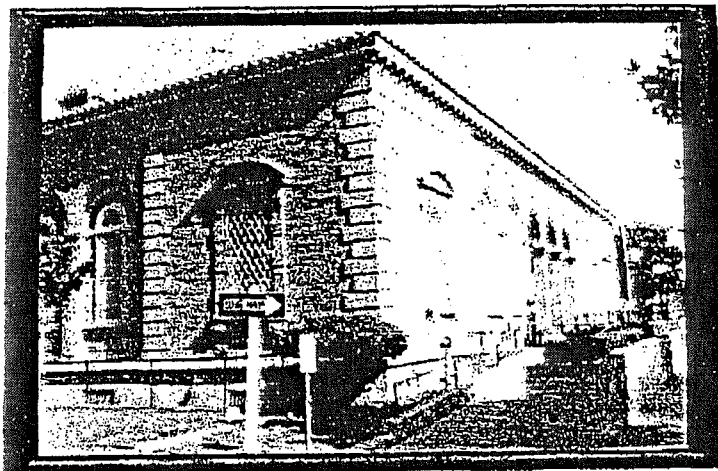
Rating: 1

Modesto
Landmark

Site No: 13

Description: Built by the Murch Brothers, of St. Louis, Missouri, the cornerstone was laid, with considerable civic ceremony, on March 12, 1933, and the building was formally dedicated on October 2, 1933. In 1936, artist Ray Boynton was commissioned to paint 13 murals for the public lobby of the building. Some are still in the building. The others were removed in the 1967 remodelling and cannot be located. This commission was part of President Roosevelt's New Deal program to aid struggling artists and to provide art in public buildings. The Modesto Federal Building is an excellent example of Academic Classicism, favored by the Treasury Department's Supervising Architect's office well into the early 1930's.

Each façade of this Classical style building is organized horizontally into an arcade flanked by two slightly projecting end pavilions. Richly defined Classical decorative elements abound, including the terra cotta entablature, arcades with Corinthian pilasters. A Mediterranean influence is evident in the "Mission" clay tile roof edges.



**(There are no 2 Rated
Sites in this Downtown Study)**

Number 3

Rated Sites

Site: Modesto City Fire Department No. 1

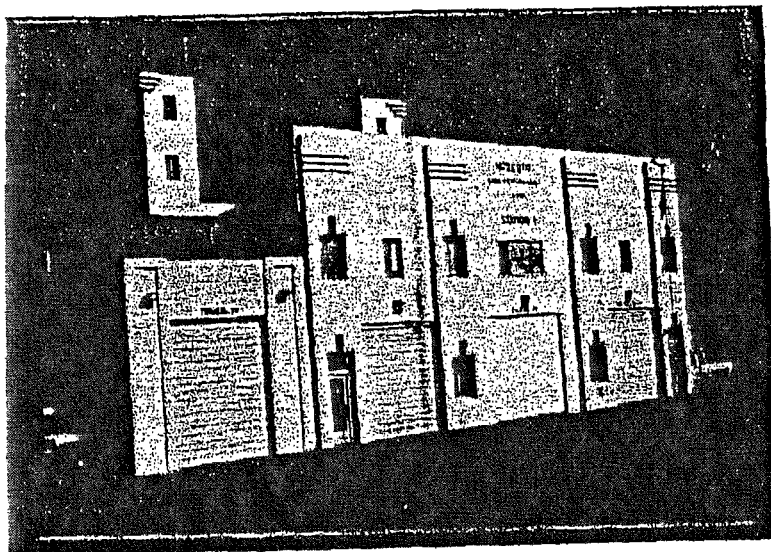
Address: 610 Eleventh St.
Modesto, CA 95354

Year Built: 1939

Rating: 3

Not Designated as a City of Modesto Landmark Site.

Description: Built by John C. Meyer of Stockton, this building is a two-story rectangular reinforced concrete Art Moderne structure. A five-story tower projects at each of the rear corners of the buildings. Simple vertical pilaster-like panels divide the façade into four bays. At the street level, each of the outer panels contains a glass door and transom. The center panels have metal frame casement windows. All four panels have second-story casement windows. These windows and doors are all slightly recessed and the structural openings have rounded edges and are trimmed with an upswept detail at the center of the lintel. The only other surface ornamentation consists of three graduated projecting horizontal bars at the top outer corner of each tower.

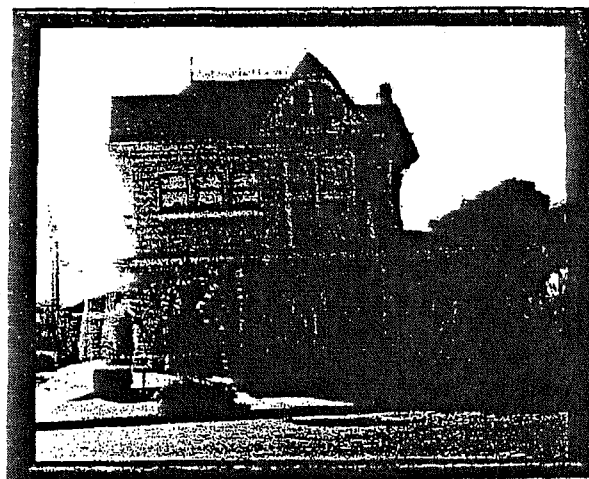


Site: Davis-Hatton House
Address: 909 14th St.
Modesto, CA 95354
Year Built: 1880
Rating: 3

Not Designated as a City of Modesto Landmark Site.

Description: W.H. Hatton built this home in 1880. Born in Ireland, Mr. Hatton immigrated to the United States at the age of 16. He came to Stanislaus County in 1879 where he became one of the county's foremost attorneys.

This is a large 2-½-story house with drop siding and a truncated pyramidal roof with fine iron cresting around the square, flat top. The roof has a boxed cornice and two long brackets on each corner and on the corners of the gables and a frieze with scallops. Across the front of the house is a large porch, which is continued all along the right side of the house. It has a flat roof, but all around the sides of it there is a downward, extension about 3 feet wide and covered with shingles. Supporting the roof are an architrave and four Tuscan columns on a low, stucco wall. Left of center are three cement steps with low, flanking walls, and opposite them is a double door paneled with glass above and carved wood below. The rear of the house has a hipped gable with a ridge about one foot long, and below the eaves there is a flat-roofed projection adjoining a gable in the center, also below the eaves.



Site: Abel & Ellman Office

Address: 1015 14th St.
Modesto, CA 95354

Year Built: 1909

Rating: 3

Not Designated as a City of Modesto Landmark Site.

Description: From 1910 until 1953, this house was occupied by the families of Gabriel D. Plato, Sol P. Elias, and Louis Harris, all of whom were associated with the Plato Clothing Store in downtown Modesto. Sol P. Elias served as mayor of Modesto from 1922 until 1931. He was also considered to be the foremost local historian of his day.

This two-story, nearly square house has stucco walls on the first story and singles on the second. There is a low-pitched roof and gables on the left and right with triangular brackets under the eaves. In front are exposed rafters with shaped ends and a wide low gable dormer with shingled walls and three short, wide double casement windows in one frame. In the center of the front of the house, there is a large, wide porch with a flat roof slightly higher than the first story. The concrete porch floor extends beyond the porch roof across the whole front and in the center are six concrete steps flanked by low horizontal walls. On the left, beyond the porch roof, is a large, single-pane window extending down to the floor. The left side of the house has one exterior brick chimney and there are two on the right side.



Site: Cressey Home

Address: 915 - 917 17th St.
Modesto, CA 95354

Year Built: 1917

Modesto
Landmark

Site No: 8

Rating: 3

Description: This Neoclassical style house with California Mission influence is two story and rectangular in shape. It has stucco walls and a tiled hip roof with molded-boxed cornice. The front of the house has a magnificent portico in the center, $\frac{3}{4}$ the height of the wall. Three enormous Tuscan columns stand in a triangular arrangement at each corner and support a molded architrave and cornice. The top of the portico is smothered in vines, as is a good part of the rest of the house. One freestanding Tuscan column is at each back corner, and a pair of Tuscan pilasters behind each of them. In the center of the back wall, there is a French door flanked by narrow glass panels, all of them with beveled panes. A conservatory on each side continues the front line of the house and extends along the side halfway back to the rear. At the left, rear corner of the house there is a small porch with two pairs of square pillars, architrave and flat roof half as high as the house wall.

George A. Cressey, the original owner of this house, was a member of one of Modesto's most prominent families. His father, Albert L. Cressey, was an early Central California pioneer, an advocate of irrigation in the San Joaquin Valley, and instrumental in securing the right of way for the Southern Pacific Railroad which ran its first train to Modesto in the fall of 1870. He and his brother also organized and opened the Modesto Bank, the first bank in Stanislaus County. George Cressey continued his family's affiliation with the Modesto Bank.



Site: First United Methodist Church

Address: 850 16th St.
Modesto, CA 95354

Year Built: 1931

Rating: 3

Not Designated as a City of Modesto Landmark Site.

Description: This Mediterranean-style, irregular shaped complex has concrete walls, and a multi-gabled, tiled roof with no eaves. The church proper projects at one end, with the entrance to the nave inside the building, and a long corridor on two stories, with rooms opening on it. The main entrance is in a wall set diagonally across the recessed corner between the nave and a gabled chapel opening off the long corridor. There are three round arches side by side, with a rectangular door in each at the back of a 1-½ foot deep slightly splayed barrel vault. A round headed, leaded window with a geometric design in each door. An outwardly curving, cement porch fills the whole corner, with six steps following the curve of the whole front of the porch. Rising over the entrance is a splendid, rectangular tower with a belfry, which has three round arches on every side, supported by twisted, glazed columns of terra cotta, with Corinthian type capitals. The chapel on the right side of the entrance has a fine, stained glass window in the gable.

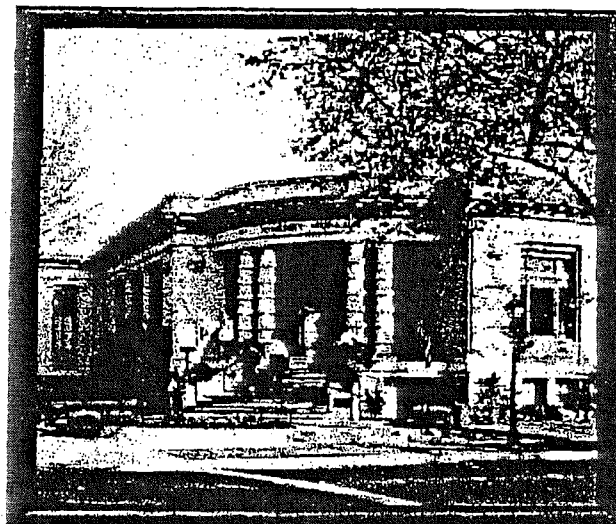
The First United Methodist Church was established in Modesto in 1871. An earlier church was built in 1873 at 13th and H Streets. Property at the present site was purchased and a new church was completed in 1931.



Site: McHenry Museum
Address: 1402 I St.
Modesto, CA 95354
Year Built: 1912
Modesto
Landmark
Site No: 2
Rating: 3

Description: The Museum is constructed of reinforced concrete and was originally square but its size was doubled an addition in the 1920's. It has a flat roof with a parapet above a classical cornice, covering three sides of the original building. The main entrance is recessed in the corner of the building next to the street intersection, with an imposing convex portico stretching from side to side and set back for the walls facing the street. Two pairs of fluted Roman Doric columns, egg and dart on the echinus, and six circular bands on the shafts, support an elaborate entablature consisting of an architrave, plain frieze, denials, bead and reel, egg and dart, rectangular modillion and cornice. Along the cornice is a series of lion heads.

In 1905, Oramil McHenry, the son of Robert and Mathilda McHenry bequeathed to the City of Modesto, three lots on Tenth Street and the sum of \$20,000 to be used for the construction of a public library. The library building was completed in 1912 at a cost of \$22,500, exclusive of furnishings.



Site: Teamsters' Hall
Address: 1222 I Street
Modesto, CA 95354
Year Built: 1937
Rating: 3
Modesto
Landmark
Site No: 28

Description: This is a three-story building of brick and concrete. The I Street facade consists of three double sets of windows on the second and third floor flanking the main entrance. The entrance is recessed and lined with marble. There are two sets of double doors. Above the entrance is a panel of cast concrete decoration with an Elk's head at the top. Cast concrete decoration highlights each of the windows. Cast concrete shields are above the windows.

This building was completed in 1927 by the Modesto Lodge No. 1282 of the Brotherhood of the Protective Order of Elks. The Elks sold the building in 1950 to the Cannery Workers Union, Local 748 of the International Teamsters Union. There was a boxing ring in the basement donated and dedicated by world heavyweight champion, Jack Dempsey.



Site: Modesto Arch

Address: 9th at I Streets
Modesto, CA

Year Built: 1911 - 1912

Modesto
Landmark

Site No: 3

Rating: 3

Description: The arch spanning I Street, consists of an elliptical, steel-truss arch supported on stucco-clad solid piers. Above the arch is the word "Modesto," while upon the arch itself is the slogan "Water Wealth, Contentment Health." These words are illuminated at night. The piers are Baroque-inspired and include engaged Doric columns, volutes and arched pediment terminations. Alterations include the removal of the flagpoles that originally topped each pier, and the relocation of the entire structure 37 feet for the widening of 9th Street. The arch is 25 feet high, with a width of 75 feet, and contains 668 lights.

In 1911, the Modesto Business Men's Association proposed the idea of an "Ornamental and Electric Arch" stretching across I Street at the intersection of 9th Street. Bernard Joseph, a Modesto architect, submitted the winning arch design. A slogan contest was held and the second prize slogan was used – "*Water, Wealth, Contentment, Health*" submitted by S.R. Harbaugh. The arch was dedicated on March 9, 1912. Known as the "Prosperity Arch," the arch today is the oldest slogan arch in the United States.



Site: St. Stanislaus Catholic Church

Address: 701 J Street
Modesto, CA 95354

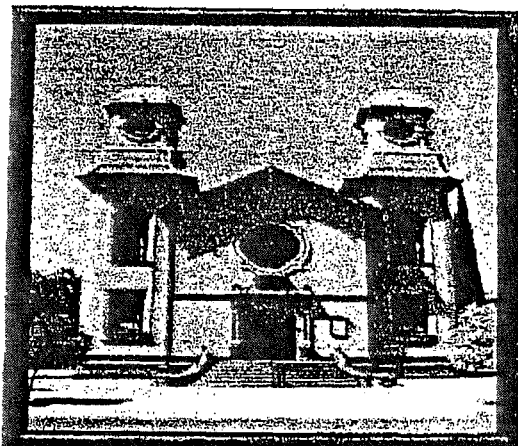
Year Built: 1917

Rating: 3

Not Designated as a City of Modesto Landmark Site.

Description: This Mission Revival style church is a high, gabled-roofed rectangular structure with two, three-story high bell towers. The primary façade features a quatrefoil rose window and a Churrigueresque-inspired pediment over the leaded, arched fanlight window and double entry doors. A broad landing, with a seven-riser staircase flanked by curving cheek walls, comprises the entry porch. Walls are clad with stucco over a high, profiled base. Two identical square bell towers, slightly set back from and flanking the main façade, are the structure's most prominent features. Rising from a base identical to that of the rest of the structure, tall leaded-glass windows. A clay-tile clad bellcast pent roof forms a transition between the high second story and the third-story terminus. Crucifix-topped domed roofs terminate the towers.

San Francisco architect, John J. Foley, built the church. The site on the new 7th Street was selected for the location on the main thoroughfare of the community. A growing congregation required more space and a new edifice was to be built, a sign of faith and loyalty in the Community. The committee in charge desired a Mission and Spanish Colonial style building and the structure was built out of reinforced concrete and steel. It was one of the few reinforced concrete buildings in the city of Modesto. The cornerstone was laid and dedicated on August 21, 1913. Bishop Hanna of San Francisco presided over the ceremonies.

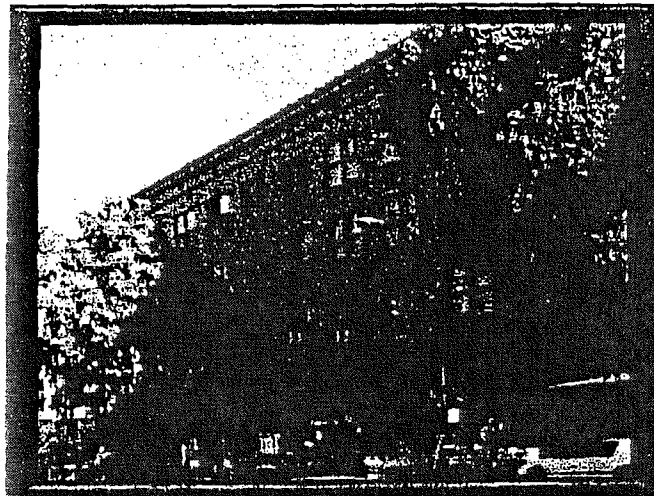


Site: Beaty Building
Address: 1024 J St.
Modesto, CA 95354
Year Built: 1925
Rating: 3

Not Designated as a City of Modesto Landmark Site.

Description: This four-story rectangular office building has red brick on two sides and glazed masonry with terra cotta trim on the street frontage. There are ornamental grains at the corners of the building. A fixed aluminum awning forms a canopy over the street level facades, which contain a variety of phases and periods of remodeling efforts. The upper three stories contain horizontal rows of paired double hung sash windows. A decorative terra cotta band surrounds the building at the roof parapet.

Built by Leilert and Trobock of San Francisco, this brick and steel structure was reputed to be the largest and finest office building between Stockton and Fresno when it was constructed in 1925 at a cost of \$175,0000. This four-story building contained 12 stores and 90 offices with every office an outside room. The interior was finished according to the latest mode and included such up-to-date features as a 12-person capacity Otis elevator, compressed air service for dentists and running ice water in the corridors. It was the only office building in California at that time to be heated by electricity due to the advantages offered by low Modesto Irrigation District electric rates. The building's owner, Jack Beaty, was also the proprietor of the Hotel Hughson.



Site: State Theater

Address: 1307 J St.
Modesto, CA 95354

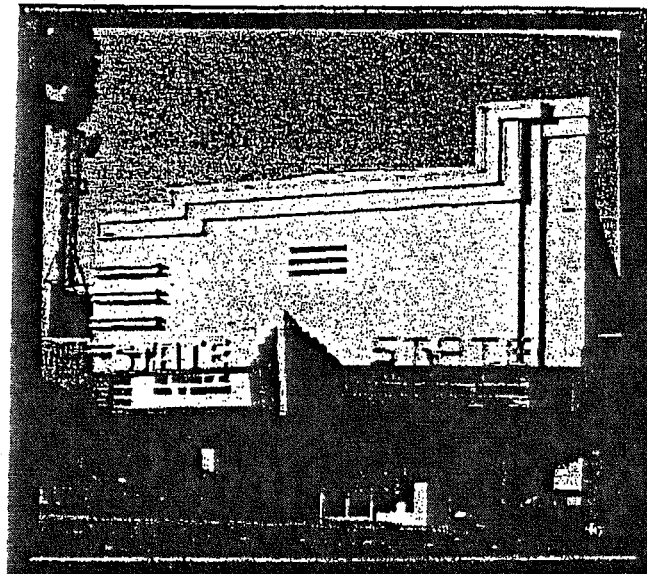
Year Built: 1934

Modesto
Landmark
Site No: 22

Rating: 3

Description: This Art Deco building has a sans-serif marquee and a cantilevered overhang. The interior walls have the original murals intact. The existing seating configuration has a gentle slope in the orchestra and a moderately-sloped balcony.

Harry Brown of Modesto built this theater for George Mann and Morgan Walsh of San Francisco. It opened on Christmas Day, 1934, with a performance of "Flirtation Walk" featuring Ruby Keeler and Dick Powell. The theater changed hands over the years but no major changes were made and the walls, murals, seating and sound systems were preserved.



Site: Modesto Water Pump Station No. 9

Address: 10th and Needham Streets

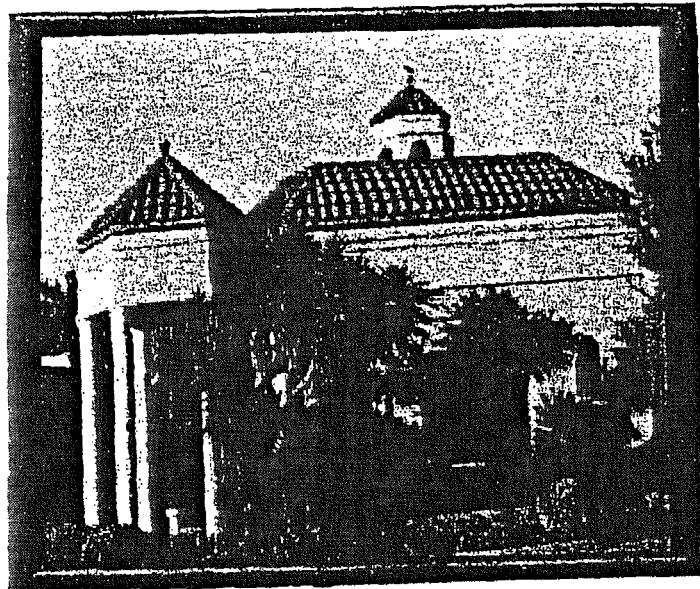
Year Built: 1930

Modesto
Landmark
Site No: 5

Rating: 3

Description: The City of Modesto built Pump Station No. 9 in 1930. A. O. Carley designed it in the California Mission Revival Style. The building has six reinforced concrete columns with plain capitals, which support the entrance. The six-sided entrance portico is roofed with small California Mission tiles and houses a water fountain. The small arched windows are now 1/8 inch Amber Cathedral leaded glass with projecting curved iron grills. All walls are reinforced with 3/8-inch steel bars. The roof of the main building is reinforced with steel bars and has a trap door to facilitate pulling the pump when necessary.

Pump Station No. 9 was built in 1930 to provide additional fire protection as the City of Modesto grew. The 70-year old structure is now the home of a coffee, floral and candle shop.



City of Modesto
Designated Landmark Preservation Sites

Site No.	Site	Address	Year Built	Date of City Council Designation
1	McHenry Mansion	906 15 th Street	1883	12/5/89
2	McHenry Museum	1402 I Street	1912	12/5/89
3	Modesto Arch	9 th and I Streets	1911-12	12/5/89
4	Modesto Ash Tree	Sierra & 3 rd Streets	Planted before 1911	10/9/90
5	Pump Station No. 9	10 th and Needham Streets	1930	10/9/90
6	Woolworth Company Sign	1014 10 th Street	Installed 1949	10/9/90
7	Fire Station No. 2	629 2 nd Street	1924	10/9/90
8	Cressey Manor	917 17 th Street	1917	11/13/90
9	Turner Hitching Post	1104 14 th Street	1871	4/23/91
10	Modesto News Herald Bldg.	726 10 th Street	1894	4/23/91
11	Hawke Castle	115 Magnolia Avenue	1929	4/23/91
12	McClure Country Place	1500 N. McClure Road	1881	11/26/91
13	U.S. Post Office and Federal Bldg.	1125 I Street	1932-33	11/26/91
14	7 th Street Bridge	7 th Street	1916	4/28/92
15	Fire Bell	629 2 nd Street	1894	4/28/92
16	Enslen Park	Stoddard and Enslen Avenues	Purchased 1906	12/8/92
17	Graceada Park	Sycamore and Needham Avenues	Donated 1906	12/8/92
18	"Rammed Earth" House – Mrs. A. Bradley, owner	1027 N. Enslen Avenue	1934	7/13/93
19	Southern Pacific Transportation Center.	9 th and J Streets	1915	12/7/93
20	Ralph M. Brown Home	309 Magnolia Avenue	1923	3/22/94
21	Gallo Founders Bldg.	401 11 th Street	1928	3/22/94
22	The State Theatre	1307 J Street	1934	1/10/95
23	Graham Home	206 Roselawn Avenue	1921	7/25/95
24	Masonic Temple	1500 J Street	1917	7/25/95
25	Stockton Savings Bank	1101 J Street	c. 1935	7/25/95
26	H Street Facade of Modesto High School	18 H Street	1918	7/25/95
27	Wissner Medical Office Bldg.	901 McHenry Avenue	1937	11/14/95

City of Modesto
Designated Landmark Preservation Sites
Page 2

Site No.	Site	Address	Year Built	Date of City Council Designation
28	Elk's Lodge	1222 I Street	1927	4/2/96
29	First Church of Christ Scientist	1328 H Street	1922	10/8/96
30	Acacia Memorial Park	801 Scenic Drive	1872	12/3/96
31	Modesto Pioneer Cemetery	905 Scenic Drive	1856	12/3/96
32	Modesto Cemetery	1001 Scenic Drive	1855	12/3/96
33	St. Stanislaus Catholic Cemetery	1141 Scenic Drive	1870	12/3/96
34	Stanislaus County Cemetery (aka Potter's Field)	1001 Scenic Drive	1872	12/3/96
35	Dr. Donald Robertson Home	211 Elmwood Court	1929	12/3/96
36	City's Christmas Tree	19 th /H/La Loma		3/25/97
37	The Stanley Home	225 Stoddard Avenue	1927	6/24/97
38	The John M. Walthall Home	118 Sycamore Ave.	1911	6/24/97
39	The Pacific Telephone	1012 11 th Street	1922	10/14/97
40	The Gundlach Residence	410 Elmwood Avenue	1937	11/12/97
41	Lish Residence	125 Poplar Avenue	1890's	3/24/98
42	Guzman Residence	215 Stoddard Avenue	1927	3/24/98
43	Ayres Residence	319 Elmwood Avenue	1923	3/24/98
44	Harris Home	230 Sycamore Avenue	1934	5/19/98
45	Large Valley Oak Tree	Tuolumne River Regional Park	Planted about 1858	7/14/98
46	Bunya Bunya Tree City of Modesto	Graceada Park on Needham Avenue	Planted in 1916	11/10/98
47	Balmannos Residence	207 Elmwood Court	1927	5/4/99
48	Cadrett Residence	201 Hintze Avenue	1931	7/27/99
49	Montrie & Robinson Residence	1001 Magnolia Avenue	1930	7/27/99
50	Anderson Residence	501 Magnolia Avenue	1922	8/24/99
51	Scully Residence	124 Sycamore Avenue	1925	10/10/00
52	Municipal Golf Course	400 Tuolumne Boulevard	1930's	3/27/01

FORM SFEC-126:
NOTIFICATION OF CONTRACT APPROVAL
(S.F. Campaign and Governmental Conduct Code § 1.126)

City Elective Officer Information <i>(Please print clearly.)</i>	
Name of City elective officer(s): Members, Board of Supervisors	City elective office(s) held: Members, Board of Supervisors
Contractor Information <i>(Please print clearly.)</i>	
Name of contractor: JWG McHenry, LLC	
Please list the names of (1) members of the contractor's board of directors; (2) the contractor's chief executive officer, chief financial officer and chief operating officer; (3) any person who has an ownership of 20 percent or more in the contractor; (4) any subcontractor listed in the bid or contract; and (5) any political committee sponsored or controlled by the contractor. Use additional pages as necessary.	
1. John W Gardner – President 2. John McSherry – Vice President 3. Brent Gardner – Vice President 4. Stefani Bettencourt – Chief Financial Officer	
Contractor address: 4460 McHenry Avenue, Modesto CA 95356	
Date that contract was approved: <i>(By the SF Board of Supervisors)</i>	Amount of contract: \$35,000.
Describe the nature of the contract that was approved: The conveyance of an easement over approximately 3,627 square foot portion of property owned by the City and County of San Francisco through its Public Utilities Commission (SFPUC) on SFPUC Parcel 656 to the City of Modesto. Authorize the City Director of Real Estate to execute the agreement conveying the Easement to Modesto (Easement Agreement) for the fair market value of \$35,000 to be paid by JWG McHenry LLC (Developer).	
Comments: SFPUC Resolution no. 15-0156 adopted by Public Utilities Commission at its meeting on July 14, 2015. authorizes the General Manager of the SFPUC and the City Director of Property, following Board of Supervisors approval of conveyance of the Easement to execute the Sale Agreement and Easement Agreement.	

This contract was approved by (check applicable):

☐ the City elective officer(s) identified on this form

☒ a board on which the City elective officer(s) serves: San Francisco Board of Supervisors
Print Name of Board

☐ the board of a state agency (Health Authority, Housing Authority Commission, Industrial Development Authority Board, Parking Authority, Redevelopment Agency Commission, Relocation Appeals Board, Treasure Island Development Authority) on which an appointee of the City elective officer(s) identified on this form sits

Print Name of Board

Filer Information <i>(Please print clearly.)</i>	
Name of filer: Angela Calvillo, Clerk of the Board	Contact telephone number: (415) 554-5184
Address: City Hall, Room 244, 1 Dr. Carlton B. Goodlett Pl., San Francisco, CA 94102	E-mail: Board.of.Supervisors@sfgov.org

Signature of City Elective Officer (if submitted by City elective officer)

Date Signed

Signature of Board Secretary or Clerk (if submitted by Board Secretary or Clerk)

Date Signed