File No. 120463 Committee Item No. 2
Board Item No. _____

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee: Land Use and Economic Development **Date** September 24, 2012

Board of Supervisors Meeting **Date** _____

Cmte	Board	
☐	☐	**Motion**
☐	☐	**Resolution**
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☐	☐	**Budget and Legislative Analyst Report**
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☐	☐	**Subcontract Budget**
☐	☐	**Contract/Agreement**
☐	☐	**Form 126 – Ethics Commission**
☐	☐	**Award Letter**
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☒	☐	**Public Correspondence**

OTHER **(Use back side if additional space is needed)**

☒	☐	Planning Commission Resolution No. 18646
☒	☐	Community Safety Element, June 2012 Draft
☒	☐	Notice of Availability and Intent to Adopt a Negative Declaration
☒	☐	Notice of Public Hearing
☐	☐	
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Completed by: Alisa Miller **Date** September 20, 2012
Completed by: _____ **Date** _____

An asterisked item represents the cover sheet to a document that exceeds 25 pages.
The complete document can be found in the file.

[General Plan - 2012 Community Safety Element Update]

Ordinance amending the San Francisco General Plan by adopting the 2012 Community Safety Element update; and making findings, including environmental findings and findings of consistency with the General Plan and Planning Code Section 101.1(b).

NOTE: Additions are *single-underline italics Times New Roman*; deletions are ~~*strike-through italics Times New Roman*~~. Board amendment additions are double-underlined; Board amendment deletions are ~~strikethrough normal~~.

Be it ordained by the People of the City and County of San Francisco:

Section Findings. The Board of Supervisors of the City and County of San Francisco hereby finds and determines that:

(a) Pursuant to San Francisco Charter Section 4.105 and Planning Code Section 340, any amendments to the General Plan shall first be considered by the Planning Commission and thereafter recommended for approval or rejection by the Board of Supervisors. On June 14, 2012, the Planning Commission conducted a duly noticed public hearing on the proposed 2012 Community Safety Element update pursuant to Planning Code Section 340 and, by Resolution No. 18646, adopted the 2012 Community Safety Element update, and recommended it for approval to the Board of Supervisors. A copy of Planning Commission Resolution No. 18646 is on file with the Clerk of the Board of Supervisors in File No. 120463.

(b) The Board of Supervisors finds that the proposed 2012 Community Safety Element update is in conformity with the priority policies of Planning Code Section 101.1 and on balance is consistent with the General Plan as it is proposed for amendment herein, and

hereby adopts the findings set forth in Planning Commission Resolution No. 18646 and incorporates such findings herein by reference.

(c) Pursuant to Planning Code Section 340, the Board finds that the proposed 2012 Community Safety Element update will serve the public necessity, convenience and welfare for the reasons set forth in Planning Commission Resolution No. 18646, which reasons are incorporated herein by reference as though fully set forth.

(d) California Environmental Quality Act. On May 23, 2012, the Environmental Planning Division of the Planning Department published a Preliminary Negative Declaration, which reviewed and analyzed the proposed 2012 Community Safety Element update and found that the proposed update would not have a significant effect on the environment. Because the proposed update was found to have either a less-than-significant impact or no impact under all impact areas, no mitigation measures were required. The Preliminary Negative Declaration was provided for public review from May 23, 2012 until June 12, 2012. On June 12, 2012, it was finalized as the Final Negative Declaration (FND). In accordance with the actions contemplated herein, this Board has reviewed the FND and concurs with its conclusions and finds that the actions contemplated herein are within the scope of the Project described and analyzed in the FND. The Board hereby adopts and incorporates by reference as though fully set forth herein the FND, which is on file with the Clerk of the Board of Supervisors in File No. 120469.

Section 2. The Board of Supervisors hereby amends the San Francisco General Plan by adopting the 2012 Community Safety Element, as the Community Safety Element of the San Francisco General Plan, as recommended to the Board of Supervisors by the Planning Commission on June 14, 2012, and referred to above.

Section 3. The Board of Supervisors hereby approves the following amendment to the General Plan Land Use Index:

The Land Use Index shall be updated as necessary to reflect the amendments set forth in Section 2, above.

Section 4. Effective Date. This ordinance shall become effective 30 days from the date of passage.

Section 5. In enacting this Ordinance, the Board intends to amend only those words, phrases, paragraphs, subsections, sections, articles, numbers, punctuation, charts, diagrams, or any other constituent part of the General Plan that are explicitly shown in this legislation as additions, deletions, Board amendment additions, and Board amendment deletions in accordance with the "Note" that appears under the official title of the legislation.

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: _____
Marlena G. Byrne
Deputy City Attorney

FILE NO. 120463

LEGISLATIVE DIGEST

[General Plan - 2012 Community Safety Element Update]

Ordinance amending the San Francisco General Plan by adopting the 2012 Community Safety Element update; and making findings, including environmental findings and findings of consistency with the General Plan and Planning Code Section 101.1(b).

Existing Law

The Community Safety Element is a component of the San Francisco General Plan, which sets forth planning and land use policies and objectives for the City and County of San Francisco

Amendments to Current Law

The proposed legislation amends the San Francisco General Plan by adopting the 2012 Community Safety Element.

SAN FRANCISCO
PLANNING DEPARTMENT

June 19, 2012

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Ms. Angela Calvillo, Clerk
Board of Supervisors
City and County of San Francisco
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Re: **Transmittal of Planning Department Case Number 2011.1401M to the Board of Supervisors: Updating the Community Safety Element of the General Plan**
Planning Commission Recommendation: *Approval*

Dear Ms. Calvillo,

On June 14, 2012, the San Francisco Planning Commission (hereinafter "Commission") conducted a duly noticed public hearings at a regularly scheduled meeting to consider the proposed Ordinance which the Commission initiated on May 17, 2012. The proposed Ordinance would amend the Community Safety Element of the General Plan.

The proposed amendment would result in no physical impact on the environment. On May 23, 2012, the Environmental Planning Division of the Department determined that the proposed project could not have a significant effect on the environment and issued a Preliminary Negative Declaration.

At the June 14 hearing, the Commission voted to recommend approval of the proposed Resolution.

Please find attached documents relating to the Commission's action. If you have any questions or require further information please do not hesitate to contact me.

Sincerely,

John Rahaim
Director of Planning

Attachments (one copy of the following):
Planning Commission Resolution No. 18646
Draft Ordinance (signed to form)
Planning Commission Executive Summary for Case No. 2011.1401M
2012 Community Safety Element

120463

SAN FRANCISCO
PLANNING DEPARTMENT

Executive Summary
Amendments to the General Plan
HEARING DATE: JUNE 14, 2012

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Date:	June 7, 2012
Case No.:	2011.1401M
Project:	General Plan Amendment- Updating the Community Safety Element of the San Francisco General Plan
Staff Contact:	Lily Langlois – (415) 575-9083 *lily.langlois@sfgov.org*
Reviewed By:	Sarah Dennis-Phillips– (415) 558-6314 *sarah.dennis@sfgov.org*
Recommendation:	**Adoption of the 2012 Community Safety Element**

BACKGROUND

The Community Safety Element is a required element of the General Plan, addressing the City's risk of natural or technological disasters, particularly seismic hazards. San Francisco has not updated the Community Safety Element since 1997. The existing Element was approved by the Planning Commission in April 1997 (Case # 1995.679M) and was adopted by Board of Supervisors on August 15, 1997 (Resolution 758-97).

The update of the Community Safety Element began in 2006, per the Mayor's Executive Directive 06-01 dated May 10, 2006. The directive stated "The City Administrator and OES/HS shall convene an interdepartmental taskforce consisting of DBI, Planning, DPW and GSA to review the status of the Community Safety Element of the City's General Plan, and update the plan with relevant seismic and building information. This group shall begin regularly scheduled meetings by July, 2006."

Over the course of one year, the taskforce met to develop an updated draft of the Element, but completion was delayed due to lack of funding. The 2012 update builds on the work of the taskforce and the Mayor's directive and incorporates the latest work of many City agencies as it relates to disaster preparedness and long term resilience. The 2012 update establishes policies and programs to protect San Francisco from risks associated with natural and manmade disasters. In San Francisco, this a particularly critical element of the General Plan because of the great risks posed by seismic hazards and large earthquakes.

The 2012 update of the Community Safety Element proposed for adoption is provided as Exhibit A. The document as proposed represents a close collaboration between numerous city agencies including the City Administrator's Office, the Department of Building Inspection, the Department of Emergency

Management, and the Department of Public Works, and the Mayor's Office, and responds to comments received from community members, City agencies and other interested parties.

CURRENT PROPOSAL

The 2012 update incorporates new information about hazards faced by the City, incorporates information on current programs dealing with disaster preparedness, response and recovery, and expands its focus to better address the City's objectives of mitigation, preparation, response, and recovery. Its new sections help ensure that directly after an earthquake, the City is well position to maximize the ability to save lives, prevent injury, and reduce damage; and that over the long term a framework is established to provide a positive path forward with housing for those displaced, services to homes and businesses, and the resumption of economic and government functions.

The 2012 update supports numerous City initiatives already underway to increase earthquake and emergency preparedness, and its adoption will ensure that such programs continue to be directed through City policy over the long-term. Implementation of the Community Safety Element will be carried out through ongoing plans such as the City's Hazard Mitigation Plan, and programs developed under the ResilientSF Initiative and the San Francisco Community Action Plan for Public Safety (CAPSS).

Significant amendments incorporated in this update include:

- A comprehensive description of plans and programs in pursuit of increased community safety, particularly those aimed at addressing earthquake risk; as well as an overview of civic organizations and resources addressing mitigation, preparation, response and recovery:
- Updated policies on mitigation and preparedness, addressing previously undiscussed emergencies such as medical emergencies and pandemics; preparedness strategies for builders, developers and private homeowners; and the importance of retrofitting privately owned buildings as well as public ones.
- New policies related to the response phase of a disaster, addressing communication and increased access to information; resumption of social services; access to capital and the protection of vulnerable historic resources.
- New policies to address recovery and reconstruction, including recommendation of a Recovery and Reconstruction Plan to guide long-term recovery before the emergency, and necessary ordinances or code changes to facilitate repair and reconstruction after the disaster.

SUMMARY OF PROPOSED CHANGES SINCE INITIATION

The attached draft proposed for adoption includes minor changes from the draft initiated by the Commission (Draft April 2012) on May 17th

1. As noted above, one goal of this update was to incorporate information on current programs dealing with disaster preparedness, response and recovery. While this information will only be a snapshot in time, it is staff's goal to have the draft at adoption be as current as possible. Since Commission initiation, the Planning Department has received a few pieces of updated information from the various departments who direct these programs. Language updating existing programs and language added for new programs includes:
    - Earthquake Safety Implementation Program

- Neighborhood Empowerment Network (NEN)
- Community Engagement
- Give2SF

2. Additionally, slight changes were made to ensure the maps in the document were relevant and up-to-date:
    - Addition of Map 6 Potential Inundation Areas Due to Reservoir Failure (existing map in 1997 element)
    - Updated Map 2 Ground Shaking Intensity San Andreas Fault
    - Updated Map 3 Ground Shaking Intensity Hayward Fault
3. Finally, two small policy changes have been incorporated to address Department and Commissioner comments made at the May 17th hearing:
    - Policy 3.4: broaden the types of supply vendors and contractors in place to respond immediately after a disaster; including vendors for medical and shelter supplies
    - Policy 4.9: added reference to social media in community engagement in the reconstruction process.

ENVIRONMENTAL REVIEW

On May 23, 2012, the Environmental Planning Division of the Department determined that the proposed project could not have a significant effect on the environment and issued a Preliminary Negative Declaration.

PUBLIC COMMENT

The Department released the 2012 update on April 18, 2012. An initiation hearing was held on May 17, 2012 and there was no public comment. Additional public comment will be taken at the Planning Commission hearing on June 14, 2012 and any subsequent adoption hearings that will be held relating to this amendment.

REQUIRED COMMISSION ACTION

On May 17, 2012, the Planning Commission adopted Resolution No. 18625, a Resolution of Intention initiating an amendment to the Community Safety Element of the General Plan. Planning Department staff recommends that the Planning Commission adopt a resolution approving amendments to the Community Safety Element of the General Plan, and request the Board of Supervisors adopt the amendments.

BASIS FOR RECOMMENDATION

- The project is a required Element of the General Plan
- The project is intended to faciliate community resilience by establishing policies to guide the City's actions in preparation for, reponse to and recovery from a major disaster.
- The project provides a path towards long term recovery and reconstruction.
- The project supports numerous city initiatives and plans underway.

RECOMMENDATION:	**Approve Amendments to the Community Safety Element of the General Plan**

Attachments:

Exhibit A:	2012 Community Safety Element for Adoption
Exhibit B:	Resolution to Initiate an Amendment to the General Plan
Exhibit C:	Resolution to Amend the General Plan
Exhibit D:	Draft Ordinance

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Planning Commission Resolution No. 18646

HEARING DATE JUNE 14, 2012

Date:	June 7, 2012
Case No.:	2011.1401M
Project:	General Plan Amendment- Updating the Community Safety Element of the San Francisco General Plan
Staff Contact:	Lily Langlois – (415) 575-9083 *lily.langlois@sfgov.org*
Reviewed By:	Sarah Dennis-Phillips– (415) 558-6314 *sarah.dennis@sfgov.org*

RECOMMENDING THAT THE BOARD OF SUPERVISORS ADOPT A PROPOSED ORDINANCE THAT WOULD AMEND THE SAN FRANCISCO GENERAL PLAN BY: AMENDING THE COMMUNITY SAFETY ELEMENT; AND MAKING FINDINGS, INCLUDING FINDINGS OF CONSISTENCY WITH THE GENERAL PLAN AND THE EIGHT PRIORITY POLICIES OF PLANNING CODE SECTION 101.1 AND FINDINGS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

WHEREAS, Section 4.105 of the Charter of the City and County of San Francisco mandates that the Planning Department shall periodically recommend to the Board of Supervisors for approval or rejection proposed amendments to the General Plan.

San Francisco has not updated the Community Safety Element since 1997. The 2012 update establishes policies and programs to protect San Francisco from risks associated with natural and manmade disasters. In San Francisco, this a particularly critical element of the General Plan because of the great risks posed by seismic hazards and large earthquakes.

The San Francisco Planning Department, in partnership with the City Administrator's Office and the Department of Emergency Management, and in coordination with other City agencies, developed an update to the Community Safety Element of the General Plan. The 2012 update incorporates new information about hazards faced by the City, incorporates information on current programs dealing with disaster preparedness, response and recovery, and expands its focus to better address the City's objectives of mitigation, preparation, response, and recovery.

Planning Code Section 101.1(b) establishes eight priority policies and is the basis by which differences between competing policies in the General Plan are resolved. The project is consistent with the eight priority policies, in that:

1. That existing neighborhood serving retail uses be preserved and enhanced and future opportunities for resident employment in or ownership of such businesses enhanced.

   The proposed update would not negatively impact neighborhood serving retail uses or future opportunities for employment. Its policies towards economic recovery would aid in the preservation of these uses after a disaster.

2. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods.

   The proposed change would not have a negative impact housing and neighborhood character. Its proposed policies to reduce structural hazards would help conserve and protect housing from disaster-related impacts.

3. That the City's supply of affordable housing be preserved and enhanced.

   The proposed change would not impact affordable housing.

4. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.

   The proposed change would not impede MUNI transit services, 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 resident employment and ownership in these sectors be enhanced.

   The proposed change would not adversely affect the industrial or service sectors.

6. That the City achieves the greatest possible preparedness to protect against injury and loss of life in an earthquake.

   The proposed change supports preparedness at all levels, and would significantly increase the City's ability to prevent injury and loss of life in an earthquake.

7. That landmarks and historic buildings be preserved.

   The proposed change would not have an impact on landmarks or historic buildings. Proposed policies would protect historic resources in the aftermath of a disaster and increase their ability to survive future earthquakes.

8. That our parks and open space and their access to sunlight and vistas be protected from development.

   The proposed change would not have an effect on parks and open spaces.

Analysis of applicable General Plan Objectives and Policies has determined that the proposed action is, on balance, consistent with the General Plan.

WHEREAS, per Planning Code Section 340, that on May 17, 2012, the Planning Commission adopted Resolution No. 18625, initiating amendments to the Community Safety Element of the General Plan, and

WHEREAS, on May 23, 2012, the Environmental Planning Division of the Planning Department published a Preliminary Negative Declaration, which reviewed and analyzed the proposed 2012 Community Safety Element update and found that the proposed update would not have a significant effect on the environment. Because the proposed update was found to have either a less-than-significant impact or no impact under all impact areas, no mitigation measures were required. The Preliminary Negative Declaration was provided for public review from May 23, 2012 until June 12, 2012. On June 12, 2012, it was finalized as the Final Negative Declaration (FND). The FND and the file for the environmental review is available for public review at the Planning Department, 1650 Mission Street. In accordance with the actions contemplated herein, this Commission has reviewed the FND and concurs with its conclusions and finds that the actions contemplated herein are within the scope of the project described and analyzed in the FND.

NOW, THEREFORE BE IT RESOLVED, that pursuant to Planning Code Section 340, the Planning Commission does hereby adopt and incorporate by reference as though fully set forth herein the Final Negative Declaration and find that the public necessity, convenience and general welfare require the proposed amendments and therefore adopts references to the 2012 Community Safety Element contained in the attached ordinance, approved as to form by the City Attorney in Exhibit D, and recommends approval of these amendments to the Board of Supervisors.

I hereby certify that the foregoing Resolution was ADOPTED by the City Planning Commission on June 14, 2012

Linda D. Avery
Commission Secretary

AYES: Antonini, Borden, Fong, Miguel, Moore, Sugaya, Wu

NOES:

ABSENT:

ADOPTED: June 14, 2012

COMMUNITY SAFETY

SAN FRANCISCO GENERAL PLAN

AN ELEMENT OF THE GENERAL PLAN OF THE CITY AND COUNTY OF SAN FRANCISCO

SAN FRANCISCO
PLANNING DEPARTMENT

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Cover photo by California Watch

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Maps & Figures

I. Summary of Objectives & Policies

OBJECTIVE 1

REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.

POLICY 1.1

Continue to support and monitor research about the nature of seismic hazards in the Bay Area, including research on earthquake prediction, warning systems and ground movement measuring devices, and about earthquake resistant construction and the improved performance of structures.

POLICY 1.2

Research and maintain information about emerging hazards such as terrorism threats and communication failures.

POLICY 1.3

Assure that new construction meets current structural and life safety standards.

POLICY 1.4

Use best practices to review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering regarding existing buildings.

POLICY 1.5

Support development and amendments to buildings code requirements that meet City seismic performance goals.

POLICY 1.6

Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.

POLICY 1.7

Consider information about geologic hazards whenever City decisions are made that will influence land use, building density, building configurations or infrastructure are made.

POLICY 1.8

Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses.

POLICY 1.9

Mitigate and assess the risk of flooding in San Francisco by incorporating the Flood Insurance Rate Map for San Francisco and related programs from this map to mitigate against flood risks.

POLICY 1.10

Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats.

POLICY 1.11

Continue to promote green stormwater management techniques.

POLICY 1.12

Ensure that new development on Treasure Island, Yerba Buena Island and Hunters Point Shipyard are resistant to natural disasters.

POLICY 1.13

Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks.

POLICY 1.14

Reduce the earthquake and fire risks posed by older small wood-frame residential buildings.

POLICY 1.15

Abate structural and non-structural hazards in City-owned structures.

POLICY 1.16

Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.

POLICY 1.17

Create a database of vulnerable buildings, seismic evaluations, and seismic retrofits to track progress, record inventories, and evaluate and report on retrofit data.

POLICY 1.18

Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.

POLICY 1.19

Mitigate against damage to City systems and infrastructure through awareness of threats posed by new forms of hazards such as terrorism and communication failures.

POLICY 1.20

Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach areas and special populations.

POLICY 1.21

Ensure plans are in place to support populations most at risk during breaks in lifelines.

POLICY 1.22

Reduce hazards from gas fired appliances and gas lines.

POLICY 1.23

Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.

POLICY 1.24

Educate public about hazardous materials procedures, including transport, storage and disposal.

POLICY 1.25

Prepare for medical emergencies and pandemics.

POLICY 1.26

Monitor emerging industries like bioscience, and ensure that state and local codes manage risks effectively.

OBJECTIVE 2

BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.

POLICY 2.1

Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."

POLICY 2.2

Encourage businesses and homeowners to evaluate their earthquake risks.

POLICY 2.3

Provide on-going disaster preparedness and hazard awareness training to all City employees and other responding agencies.

POLICY 2.4

Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

POLICY 2.5

Maintain a comprehensive, current Emergency Response Plan, in compliance with applicable state and federal regulations, to guide the response to disasters.

POLICY 2.6

Create a consolidated website linking all of the City's disaster-related information for the general public.

POLICY 2.7

Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.

POLICY 2.8

Ensure potable water is available in an emergency.

POLICY 2.9

Develop agreements with private facilities to ensure immediate supply needs can be met.

POLICY 2.10

Maintain the San Francisco Disaster Debris Management Plan.

POLICY 2.11

Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

POLICY 2.12

Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.

POLICY 2.13

Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.

POLICY 2.14

Support the Emergency Operations Center, and continue maintenance of alternative operations centers in the case of an emergency.

POLICY 2.15

Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

POLICY 2.16

Plan to address security issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.

POLICY 2.17

Ensure the City's plan for medical response is coordinated with its privately owned hospitals.

POLICY 2.18

Ensure all Response Plans are coordinated with the Disaster Council.

POLICY 2.19

Seek funding for preparedness projects.

POLICY 2.20

Enhance communications with nearby jurisdictions.

POLICY 2.21

Develop and maintain mutual aid agreements with local, regional and state governments as well as other relevant agencies.

POLICY 2.22

Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.

OBJECTIVE 3

ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

POLICY 3.1

After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan.

POLICY 3.2

Follow the National Incident Management System (NIMS) Procedures in declared emergency scenarios.

POLICY 3.3

Have plans to accept, organize and utilize convergence workers.

POLICY 3.4

Have vendors and contractors available to respond immediately after a disaster.

POLICY 3.5

Develop strategies for cooperating with the media.

POLICY 3.6

Support the ability to shelter-in-place for residents.

POLICY 3.7

Develop a system to convey personalized information during and immediately after a disaster.

POLICY 3.8

Establish centers to facilitate permits for repairs.

POLICY 3.9

Work collaboratively with nonprofit partners to assist vulnerable populations during and immediately after a disaster and to ensure resumption of social services directly after a disaster.

POLICY 3.10

Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster.

POLICY 3.11

Ensure historic resources are protected in the aftermath of a disaster.

POLICY 3.12

Address hazardous material and other spills by requiring appropriate cleanup by property owners per local, state, and federal environmental laws.

OBJECTIVE 4

ASSURE THE SOUND, EQUITABLE AND EXPEDIENT RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.

POLICY 4.1

Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate rebuilding activity.

POLICY 4.2

As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance, to facilitate the repair and reconstruction of buildings.

POLICY 4.3

As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employee's skills can be used effectively towards recovery and reconstruction efforts.

POLICY 4.4

Update the advance recovery framework on a regular basis.

POLICY 4.5

Develop and maintain public support for the advance recovery framework to ensure its eventual implementation.

POLICY 4.6

Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.

POLICY 4.7

Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies.

POLICY 4.8

Where necessary, use public authority to expedite repair, reconstruction and rebuilding.

POLICY 4.9

Engage the community in the reconstruction planning process.

POLICY 4.10

View recovery as a partnership with neighborhoods.

POLICY 4.11

Promote partnerships with non-governmental agencies, including public/private partnerships, to ensure support is ready to step in after a disaster.

POLICY 4.12

Rebuild after a major disaster consistent with established General Plan objectives and policies.

POLICY 4.13

Support existing policies to create and maintain affordable housing choices.

POLICY 4.14

Utilize emergency exemptions for rebuild projects with limited or no environmental impacts.

POLICY 4.15

Utilize green building practices in rebuilding.

POLICY 4.16

Ensure design character and quality is paramount in consideration of all rebuilding projects.

POLICY 4.17

Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible.

POLICY 4.18

Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality.

POLICY 4.19

Consider homelessness in the wake of disaster.

POLICY 4.20

Ensure sufficient workforce housing during reconstruction.

POLICY 4.21

Have an economic recovery plan in place before the disaster strikes.

POLICY 4.22

Explore expansion of the City's disaster relief programs.

POLICY 4.23

Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures.

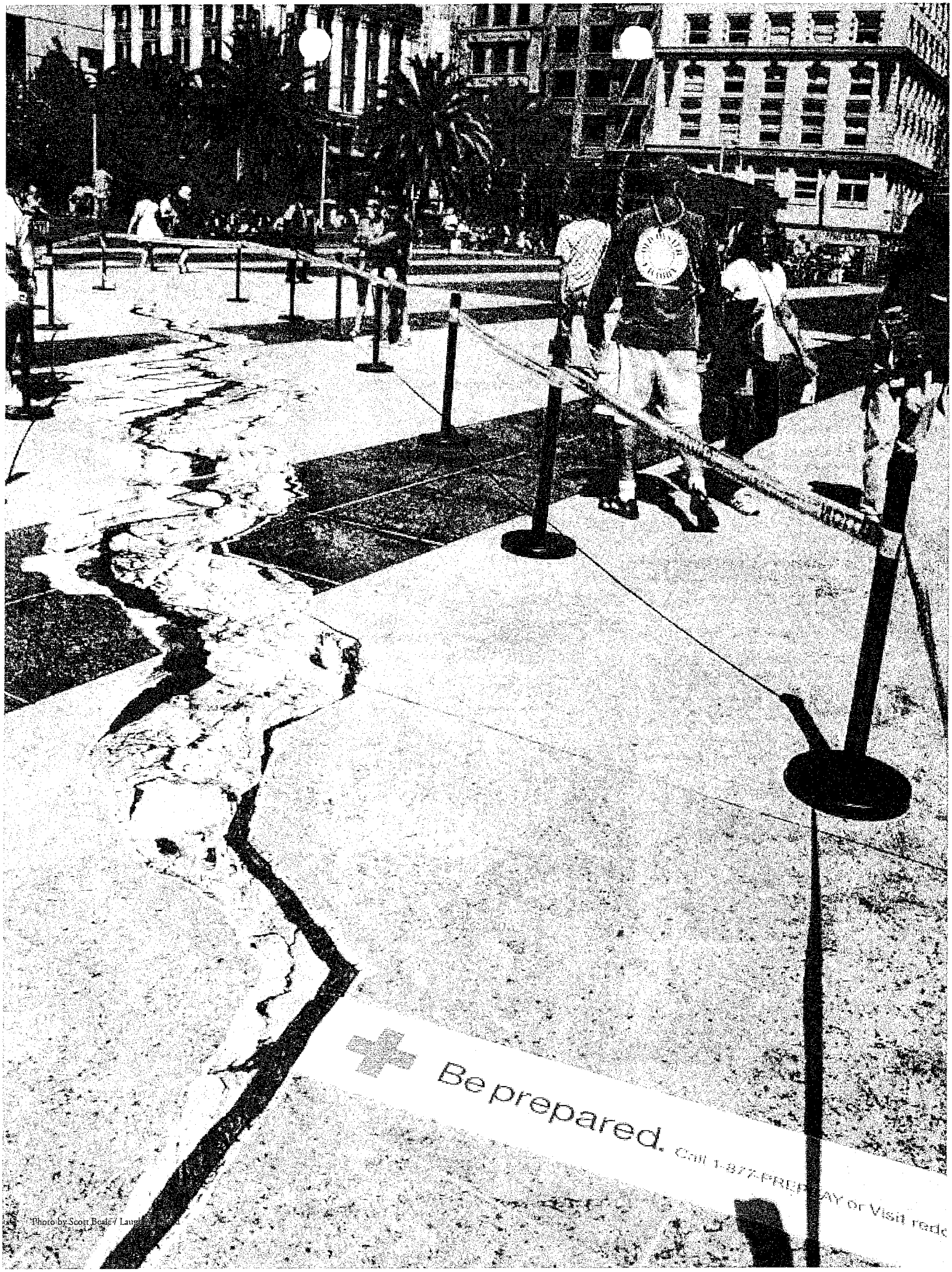


Photo by Scott Beale / Laug

II. Introduction

The purpose of the Community Safety Element is to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. There are several assumptions behind this Element:

- Creating a greater public awareness of the hazards and risks that face San Francisco will result in an informed commitment by public agencies, private organizations and individuals to prepare for future disasters.
- Development and implementation of programs to increase safety and economic resilience, mitigate risk, increase preparedness and respond to emergencies are the responsibility of many different agencies. Cooperation among City and County agencies, Bay Area Communities, federal and state agencies, community-based organizations, and the private sector is essential for these programs to be effective.
- New policies and programs must be developed and funding vehicles identified that will minimize risks from natural hazards and expedite the recovery process.
- Existing hazardous structures have the greatest potential for loss of life, extended economic interruption and other serious impacts as a result of an earthquake. The City should continue to explore ways to reduce these risks.

The Community Safety Element focuses on seismic hazards, because the greatest risks to life and property in San Francisco result directly from the ground shaking, ground failure, and other impacts associated with large earthquakes. Other hazards common in other California communities, such as ground failure, inundation, landslides, hazardous materials releases and fire, are most likely to occur in San Francisco in association with an earthquake, and are addressed in that capacity. Additionally, other hazards, particularly man-made hazards, pose threats to the City's health and welfare, and must be considered here in terms of hazard mitigation, preparedness, response and recovery.

The Community Safety Element establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. Implementation of the Community Safety Element is carried out through a number of City plans and programs, as described below-most specifically the City's Hazard Mitigation Plan and the programs developed under the Resilient San Francisco Initiative (ResilientSF) – as well as by the agencies and entities referenced in relevant policies.

Relationship to Other Plans and Programs

While the Community Safety Element also establishes policies to guide the longer-term recovery and rebuilding of the City, a more detailed plan will be needed to coordinate the specific efforts of the City, its residents, and its economy in recovery and rebuilding following a major disaster. Therefore, this Element calls for a recovery framework to be developed prior to any disaster, to set the stage for a recovery and rebuilding plan to be developed after a disaster. This eventual recovery and rebuilding plan will make clear the community's vision for how our City – its physical infrastructure, transportation systems, and neighborhoods – will be rebuilt in the case of a major disaster or catastrophe.

Plans

The Community Safety Element, and its related components described above, contains broader policies to reduce impacts, occurring over a longer time frame, that will need to be carried out by the Planning Commission and other City agencies. The City also maintains several policy documents and response plans that provide more immediate direction to specific agencies in the case of disaster. These include:

CCSF Emergency Response Plan

The City's Emergency Response Plan is maintained and updated by the Department of Emergency Management. The Emergency Response Plan implements many of the emergency response policies of this Community Safety Element.

The Emergency Response Plan provides for a coordinated response to disaster by describing specific responses to be undertaken by the emergency response agencies, and other supporting City departments. The Emergency Response Plan is divided into three parts. Part 1 provides an overview of the emergency management system at the policy and operations levels, and is intended to educate the City's agencies about emergency operations in San Francisco. Part 2 (under development at the time of drafting) consists of detailed and restricted information that will be used by Emergency Command Center personnel in response actions; and is intended for internal and authorized emergency management staff. Part 3 (under development at the time of drafting) is a set of functional and hazard-specific annexes that provide additional detailed response, resource and recovery information on specific areas of response, such as Care and Shelter, Evacuation and Volunteer Management. Examples of hazard-specific annexes are Earthquake, Oil Spill and National Security Emergency.

CCSF Hazard Mitigation Plan

Another related plan is the Hazard Mitigation Plan, required by federal law as a condition of receiving hazard mitigation grants after a declared disaster. By law, a Hazard Mitigation Plan must describe the type, location, and extent of all natural hazards that can affect the jurisdiction; describe the jurisdiction's vulnerability to these hazards; include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses; and, contain a plan maintenance process. The Hazard Mitigation Plan serves as one of the Implementation Programs of the Community Safety Element, and contains programs that implement its policies. The Board of Supervisors regularly adopts updates to the San Francisco Hazard Mitigation Plan.

Citywide Earthquake Response Plan

The Citywide Earthquake Response Plan is designed to support the Emergency Response Plan (ERP), by providing considerations for a response to a major earthquake in the Bay Area that has a significant effect on the City of San Francisco. While the EOP focuses on preparedness and mitigation, this Response Plan is primarily focused on response and short-term recovery operations. The Response Plan provides direct response strategies for all of the City's agencies in various functions that must be performed in the wake of a major earthquake. Also, for a comprehensive analysis of the potential impact of a range of earthquake magnitudes on the City, and their cumulative effects on our population and built environment, see Appendix A: Hazard Analysis of the Catastrophic Earthquake Response Plan.

Regional Emergency Coordination Plan

The San Francisco Department of Emergency Management is the lead agency to develop a Regional Emergency Coordination Plan (RECP), which is focused on the responsibilities and procedures between California's Emer-

gency Management Agency (CalEMA) and the counties. The plan is designed to enhance coordination in governance, fire response, law enforcement, and industry across municipalities in the region; and will facilitate the flow of mutual aid. The RECP is intended to reflect existing plans and interagency agreements, and to address any gaps or inconsistencies between the existing plans. The RECP entails a Baseline Plan and nine subsidiary elements, including the Transportation Coordination and Recovery Plan (TCRP).

San Francisco All-Hazards Strategic Plan

The San Francisco All-Hazards Strategic Plan contains a five-year vision and strategy for the City's disaster management program and is intended to enhance the City's ability to deter, prevent, respond to, and recover from acts of terrorism and natural and human-caused disasters. The Strategic Plan is designed to serve as a long-term guide that is able to direct both short- and long-term planning and preparedness efforts of City and non-governmental agencies to accomplish a single emergency management and homeland security vision and mission. This plan uses the Department of Homeland Security Target Capabilities List to identify a desired end state of the City's emergency management and homeland security capabilities, and provides objectives and performance metrics to twenty strategic goals for enhancing the City's resilience identified by senior leadership and major stakeholders. The Strategic Plan is designed to assist citywide senior leadership in directing programmatic efforts, accomplishing results, ensuring accountability, and properly allocating limited resources through the duration of the plan.

State of California Seismic Hazards Mapping Act

In 1990, the California Legislature enacted the Seismic Hazards Mapping Act (SHMA). As a result, the Department of Conservation, California Geological Survey (CGS) (formerly known as the California Division of Mines and Geology) published a report entitled "Seismic Hazard Zone Report for the City and County of San Francisco, California" in 2000 and the Seismic Hazard Zones map for the City and County of San Francisco in 2001. The Seismic Hazard Zones (SHZ) map is included in this Element, and shows the areas with potential liquefaction and earthquake-induced landslides.

The City must take the information contained in the maps into account when preparing the Community Safety Element, or when adopting or revising land use ordinances. When development projects are proposed within the SHZs, the project sponsor is required to conduct a site investigation and prepare a seismic hazard report assessing the nature and severity of the hazard, and suggesting appropriate geotechnical measures and structural design features. When approving any project in a SHZ, the City will use the information and recommendations included in the report to achieve a reasonable protection of public safety.

Programs

The City of San Francisco has developed several local programs to address hazard mitigation, reduce losses, and deal with post-disaster reconstruction issues. The programs outlined below are not an exhaustive list, but rather meet the current needs at the time the Element was adopted. Additional programs may be developed.

Building Occupancy Resumption Program (BORP)

The usual building inspection and posting program, instituted after a damaging earthquake, is organized to allow volunteer inspectors to post buildings that need to be reviewed by qualified structural engineers before they can be reoccupied. The BORP, coordinated by the Department of Building Inspection, is an emergency inspection program designed to facilitate rapid decisions regarding reoccupancy by eliminating the step by volunteer inspectors. The program provides pre-certification for private emergency inspection by qualified Structural Engineers who are retained by the building owner to evaluate and post buildings on behalf of the City. Building owners must request participation in this program prior to an earthquake, or other disaster, sponsor a pre-earthquake evaluation of their building, and meet the program requirements for setting specific criteria for posting. This program allows knowledgeable, pre-approved engineers to inspect and definitively post a building immediately without the need for another level of inspection. The City does not charge a fee for participation in this program.

Community Action Plan for Seismic Safety (CAPSS) and the Earthquake Safety Implementation Program (ESIP)

The Community Action Plan for Seismic Safety (CAPSS) was a ten-year project and study contracted with the Applied Technology Council (ATC) to understand the seismic vulnerability of San Francisco's privately owned buildings. The follow-up to CAPSS is the Earthquake Safety Implementation Program (ESIP), a program intended to implement the recommendations of the CAPSS study. CAPSS and ESIP are based on five objectives: that residents will be able to stay in their own homes following a disaster, that residents will quickly have access to important privately-run community services, that no building will collapse catastrophically, that businesses and the economy will quickly return to functionality, and that the City's sense of place will be preserved. These objectives are supported by seventeen recommendations.

The CAPSS project was divided into three phases: Its first phase involved preliminary evaluations of seismic risks and public meetings to gain input on ways to reduce that risk. The second phase of CAPSS included several components: a vulnerability assessment identifying the City's most at-risk private buildings, which led to the development of a section on earthquake safety for soft-story buildings; the formulation of requirements for the evaluation of, and subsequent repair or demolition of, buildings that are significantly damaged by earthquakes; and an implementation plan to carry out the seventeen recommendations laid out by the program. This last component carries on the work of CAPSS as ESIP.

Community Engagement

The Department of Emergency Management Community Engagement team partners with and works to support the efforts of the government, private sector, and non-profit-, faith-based, and community-based organizations that have a role in San Francisco's resilience. The goal of this program is to enhance the community's capacity to participate in the City's rapid and effective recovery.

The Community Engagement team promotes personal and organizational preparedness among partners by providing all-hazards education, multi-media, promotional campaigns, toolkits and guidance for organizational continuity, planning, and exercises to help ensure that plans can be effectively carried out in the case of a disaster. During an emergency, the Community Engagement team integrates the efforts, resources, and on the ground awareness of private sector partners into emergency operations through the use of communication technologies and by including representatives from those sectors at the Community Branch of the Emergency Operations. *Coordinated Assistance Network*

The Bay Area Coordinated Assistance Network (Bay Area CAN) is a collaborative group of nonprofit, community-based, faith-based, and government agencies working together to strengthen the region's disaster response and recovery systems. The primary purpose is to coordinate and utilize a shared client and resource information database that shares complete client data among members to enhance services to clients after a disaster. Bay Area CAN uses information and referral systems such as 2-1-1 to help organizations to effectively match the needs of disaster clients with available resources. The core agencies involved in Bay Area CAN are American Red Cross Bay Area, The Salvation Army, United Way of the Bay Area, HELPLINK / 211, The Volunteer Center, SF VOAD, Catholic Charities CYO, SF CARD, SF Dept. of Emergency Management, and San Francisco Human Services Agency

Give2SF

Established under Sec. 10.100-100 of the San Francisco Administrative Code, Give2SF is an on-line donations program created in 2011 to provide an opportunity for individuals or organizations to make on-line as well as mail-in donations to a group of City programs, including the San Francisco Disaster Recovery Fund. These funds can only be used to replace, repair and rebuild essential buildings, roadway systems, transportation, water services and other critical infrastructure damaged in an emergency such as an earthquake. These funds will help San Francisco rebound so services can be delivered, commerce can continue, and residents can get to schools, hospitals and their jobs as soon as possible after a disaster. Following a declaration of disaster, the Mayor can direct the administrator of Give2SF to remove links to the other five programs and disable those funds so that the only donation option is the San Francisco Disaster Fund .

Lifelines Council

In 2009, the City and County of San Francisco convened a Lifelines Council under the Citywide Post-Disaster Resilience and Recovery Initiative with a purpose and scope focused on post-disaster reconstruction and recovery (*http://sfgsa.org/lifelinescouncil/*). The Lifelines Council seeks to:

- Develop and improve collaboration in the City and across the region.
- Understand inter-system dependencies to enhance planning, restoration and reconstruction.
- Share information about recovery plans, projects and priorities.
- Establish coordination processes for lifeline restoration and recovery following a major disaster event.

Membership consists of executive officers and senior-level operational deputies of City and County of San Francisco agencies, and other local and regional providers of transportation, water, power, communications, and other essential services.

Neighborhood Emergency Response Team (NERT) and NERT Medical Reserve Corps (NERT MRC)

The Neighborhood Emergency Response Team Training Program was developed by the San Francisco Fire Department after the residential response to the 1989 earthquake. The program provides hands-on training in disaster skills and emergency response to various engaged groups, such as individual residents, neighborhood groups, response staff for the medical and hospitality sectors, and members of partnership agencies, and prepares them to be members of a team to respond to personal emergencies or as an adjunct to the SFFD response. The training prepares volunteers for all phases of emergency - preparedness, mitigation, response and recovery.

The San Francisco Fire Department makes the 20-hour NERT training available for people who live or work in San Francisco at no cost. The classes are taught by first responders of the San Francisco Fire Department. NERT also makes available continuing training opportunities for NERT graduates.

The SFFD also coordinates San Francisco's Medical Reserve Corps (NERT MRC), a volunteer organization of EMTs, Paramedics, first responders, fire service volunteers, medical professionals, students and retirees of these disciplines, and community members to serve San Franciscans with non-clinical needs by establishing local teams of medical, health and other volunteers to strengthen the public health infrastructure, improve emergency preparedness, and provide logistical support to professional responders.

Neighborhood Empowerment Network (www.empowersf.org)

The "Neighborhood Empowerment Network"is a colaition of residents, neighborhood and merchant organizations, nonprofits, academic and faith-based instiutions, foundations and government agencies whose mission is to empower residents and their communities with the capacity and resources to build strong communities. The NEN accomplishes this by leveraging the assets of Network members to build programs, tools and technical resources that neighborhood stakeholders can leverage as they create safe, clean, healthy, inclusive and economically resilient communities *(empowersf.org)*.

Resilient San Francisco Initiative (Resilient SF)

The Resilient San Francisco Initiative (ResilientSF) advances San Francisco's overall resilience by providing a framework, and road map, that coordinates plans, programs, resources and relationships that increase the capacity of individuals, organizations and communities to collectively solve problems and capture opportunities. Organizatinally hosted by the City Adminstrator, the Department of Emergency Management and the Controller's Office, ResilientSF acts as a comprehensive planning platform, residing in the Department of Emergency Management, which tracks and coordinates plans and programs cross-sector to ensure the City's overall ability to both respond rapidly to a disaster as well as achieve an accelerated recovery. ResilientSF accomplishes its goals by leveraging existing capacity programs, such as the Lifelines Council, CAPSS/ESIP, the Capital Planning Program, and NEN, as well as developing a suite of initiatives to advance the overarching mission. ResilientSF incorporates the work of the 2009 Citywide Post-Disaster Resilience and Recovery Initiative.

San Francisco Community Agencies Responding to Disasters (SFCARD)

SFCARD works with human service agencies serving vulnerable populations in San Francisco to ensure business continuity after a disaster. They provide extensive disaster preparedness training to support the capacity of local agencies and the vulnerable populations that they serve. In partnership with HELPLINK and the Volunteer Center, SFCARD is working a creating a Disaster Database to assist Health and Human Service agencies before, during, and after a disaster.

San Francisco Coordinated Assistance Network (SF CAN)

SF CAN is a collaborative group of nonprofit and faith-based agencies working together to strengthen San Francisco's disaster response and recovery systems. The primary purpose is to coordinate and utilize a shared client and resource information database that shares client data among members to enhance services to clients after a disaster. In addition, the collaboration works to create joint response and recovery plans that are integrated into the City's overall response plan and enhance existing community collaboration efforts. The core agencies involved in CAN are American Red Cross Bay Area, The Salvation Army, United Way of the Bay Area, HELPLINK / 211, The Volunteer Center, VOAD, Catholic Charities CYO, SF CARD, SF Dept. of Emergency Management, and San Francisco Human Services Agency.

San Francisco Urban Planning and Research Association – "Resilient City" Initiative (SPUR)

In 2006, earthquake professionals and policymakers in San Francisco joined forces in an initiative to identify and prioritize policies and actions that are needed to help ensure that San Francisco can rebound quickly from a major earthquake. Their efforts resulted in four major policy papers (to date) summarized in the "The Resilient City," policy paper adopted by the Board of the San Francisco Planning and Urban Research Association in 2008 (*http://www.spur.org/policy/the-resilient-city*). The document provides a vision for a resilient San Francisco as having:

> *"chosen to invest the time, energy, and political and economic capital to become a city that can rebound quickly from a natural disaster. It became a city that established performance objectives for buildings and for lifelines — those systems such as power, gas and water services, as well as communications and transportation systems. Enough homes have been retrofitted so that the vast majority of San Franciscans are able to shelter in place. A 'Lifelines Council' with influence over the preparation of critical services has ensured that the city's water, gas, electricity and sewer services are strong enough to be back in use within days. Seismic Silver and Seismic Gold buildings, defined by a new voluntary rating system, perform so well that they quickly become a model for all new housing in the region. The entire city is back on its feet within four months."*

SF Ready

A collaboration between the Chamber of Commerce, Department of Emergency Management and numerous concerned businesses. SF Ready produces roundtables every other month, free to the public, on topics of business emergency preparedness and business continuity.

Soft Story Wood-Frame Seismic Hazard Reduction Program

"Soft-story" buildings are wood-frame buildings with open fronts, usually large openings on the ground floor such as multiple garage doors or large storefront windows. Because of the lack of lateral in the first story, these buildings are at high risk for partial or total collapse in an earthquake. Particularly hazardous are corner buildings, where two sides of the building exhibit open fronts. DBI expects to require mandatory strengthening of soft-story wood-frame residential buildings of three or more stories and 5 or more residential units built before 1978. Other soft story buildings are expected to be subject to mandatory retrofit in following phases.

There are also several civic organizations and resources addressing the issue of seismic mitigation, preparation and recovery:

Unreinforced Masonry Building Program

An unreinforced masonry bearing wall building (UMB) is a building or structure having at least one unreinforced masonry (typically brick) bearing wall. UMBs have a strong likelihood of structural failure in the event of earthquakes, either by the collapse of walls or the entire building.

TARGET STATES OF RECOVERY FOR SAN FRANCISCO'S BUILDINGS AND INFRASTRUCTURE

INFRASTRUCTURE CLUSTER FACILITIES	Event occurs	Phase 1 Hours			Phase 2 Days		Phase 3 Months		
		4	24	72	30	60	4	36	36+
CRITICAL RESPONSE FACILITIES AND SUPPORT SYSTEMS									
Hospitals								X	
Police and fire stations			X						
Emergency Operations Center									
Related utilities						X			
Roads and ports for emergency				X					
CalTrain for emergency traffic					X				
Airport for emergency traffic				X					
EMERGENCY HOUSING AND SUPPORT SYSTEMS									
95% residence shelter-in-place								X	
Emergency responder housing				X					
Public shelters							X		
90% related utilities				■				X	
90% roads, port facilities and public transit				■			X		
90% Muni and BART capacity				■		X			
HOUSING AND NEIGBORHOOD INFRASTRUCTURE									
Essential city service facilities					■		X		
Schools					■		X		
Medical provider offices					■			X	
90% neighborhood retail services					■				X
95% of all utilities					■			X	
90% roads and highways					■	X			
90% transit					■	X			
90% railroads					■		X		
Airport for commercial traffic					■				
95% transit						■	X		
COMMUNITY RECOVERY									
All residences repaired, replaced or relocated							■		X
95% neighboorhood retail businesses open							■	X	
50% offices and workplaces open							■		X
Non-emergency city service facilities								■	
All businesses open								■	X
100% utilities								■	X
100% roads and highways								■	X
100% travel								■	X

Source: SPUR analysis

TARGET STATES OF RECOVERY

Performance measure	Description of usability after expected event	BUILDINGS	LIFELINES
	Category A: Safe and operational		
	Category B: Safe and usable during repairs	100% restored in 4 hours	
■	Category C: Safe and usable after moderate repairs	100% restored in 4 months	
X	Expected current status		

San Francisco Urban Planning and Research Association – "Resilient City" Initiative (SPUR), 2008

In 1992, the Unreinforced Masonry Building Seismic Hazard Reduction Program and Ordinance required the retrofit of unreinforced masonry buildings (UMBs), to address their record of poor performance in earthquakes. The Department of Building Inspection is charged with oversight and enforcement of the program. As of February 2006, all UMB's were required to be in full compliance with the Ordinance. As of January 2007, all but approximately 270 of these buildings had been retrofit. The remaining upgrades should be carried out to complete the requirements of this program.

The Seismic Safety Retrofit Bond and Loan Program, also known as the UMB Loan Program, was authorized by San Francisco voters in 1992, authorizing $350 million in bonds for loans to owners of UMBs. As this program was intended to support the UMB Ordinance, it is largely completed. Approximately $3.5 million in market-rate funds remain, though additional bonds could be issued to restore funding. The program is administered by the Mayor's Office of Housing and a Loan Committee established by the Board of Supervisors.

Vial of Life

This program targets seniors and people with disabilities and provides a mechanism for first responders to gain life-saving information about these individuals when responding to an emergency at the individual's residence. Important medical information is recorded on a single form and inserted into a vial that is then placed in the individual's refrigerator. Magnets and window decals are provided along with the form and vial so that responders know to look in the refrigerator upon arriving on scene. This program is distributed in partnership with the SFFD and San Francisco State University Community Involvement Program, among other programs that work with the target population.

72hours.org

72hours.org is a public service campaign providing information to residents on how to prepare for emergencies such as earthquakes, fires, severe storms, power outages and acts of terrorism. The program includes a series of public service announcements and an emergency preparedness website developed and maintained by the Department of Emergency Management. The website offers step-by-step instructions on how to make a family emergency plan, build a disaster kit, and get training before a disaster occurs.

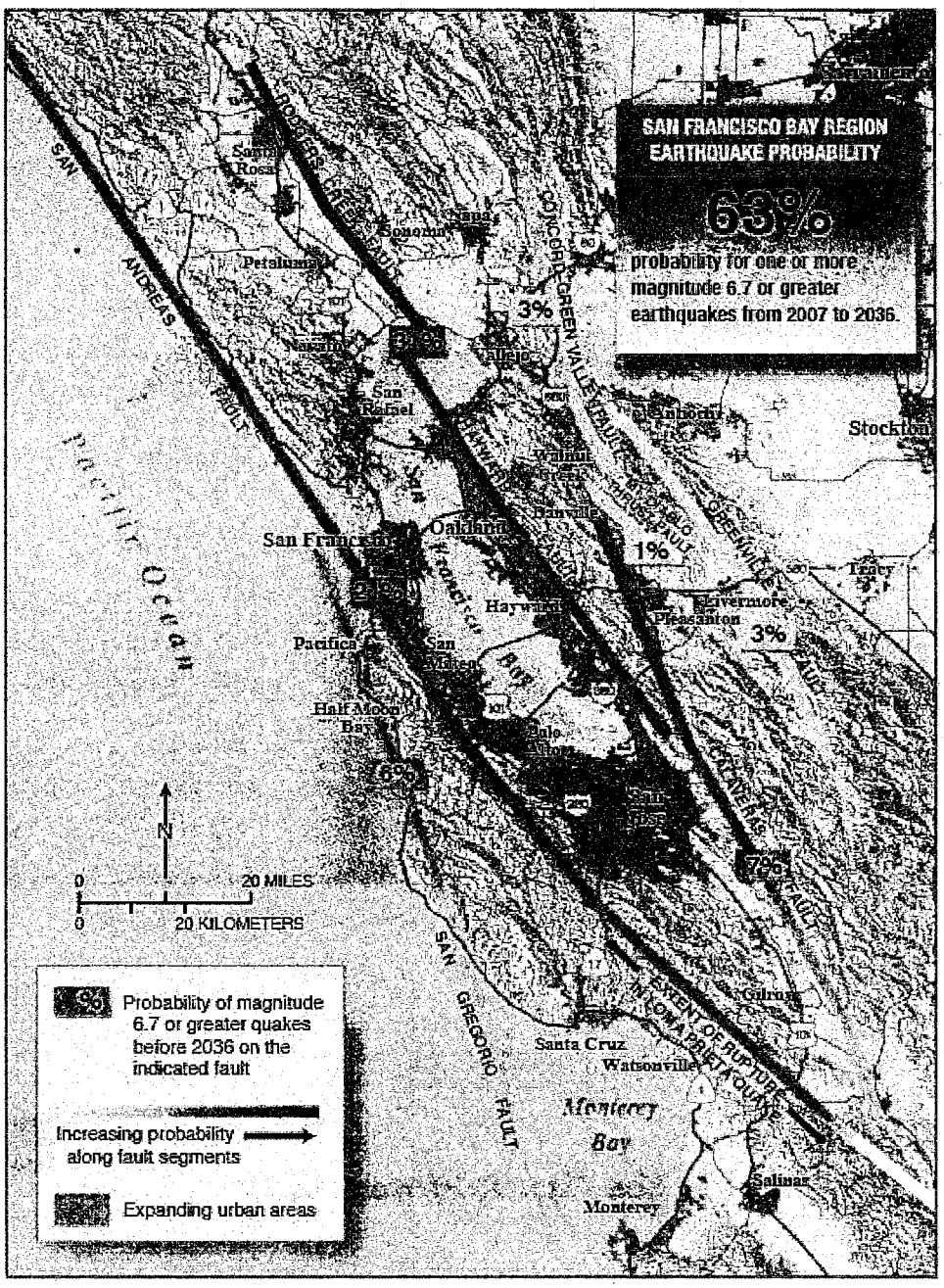
Natural Hazards in San Francisco

The greatest risks to life and property in San Francisco result directly from the ground shaking and ground failure associated with large earthquakes. Many of the other hazards San Francisco faces, such as urban fires, transportation disruption, communication or technical failures, and ground failure are often associated with an earthquake. Other, less common, natural hazards include flooding due to a tsunami, seiche or reservoir failure, which may occur as a result of an earthquake. Another risk category consists of disasters due to human activity, such as environmental disasters such from the release of hazardous materials, including oil spills, socially motivated catastrophes from civil disturbances and terrorism, and might even include large-scale road accidents, incidents on commercial aircraft or other large scale mechanical failure.
The section immediately following contains a brief review of the City's earthquake vulnerability and the risks associated with earthquakes: ground shaking and ground failures such as settlement, liquefaction and landslides. The subsequent section discusses inundation hazards such as tsunami and flooding. Human-caused disasters, such as terrorist activity, transportation disruptions or collisions, building collapses, and hazardous material spills or explosions are not discussed at length in this section, However, the mitigation, preparedness and response policies contained later in this Element apply to these kinds of disasters as well.

The City's Emergency Response Plan will provide more detail on disaster threats faced by the City of San Francisco. The recently adopted San Francisco Hazard Mitigation Plan will provide further analyses of these hazards, and as include specific hazard mitigation plans and programs to address them.

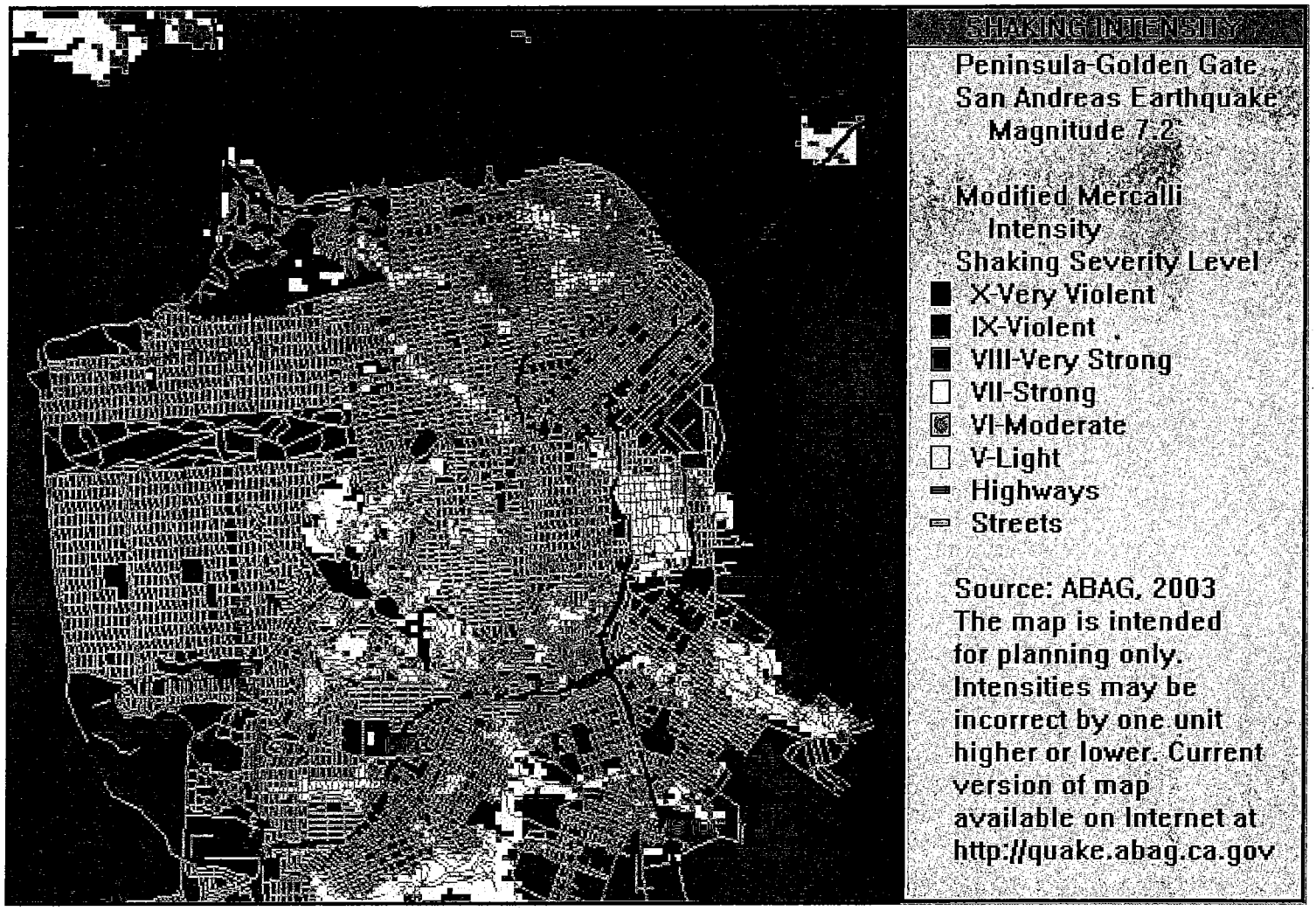
Earthquakes

Earthquakes have always occurred in the San Francisco area and will continue to occur in the future. There is a historical record of damaging earthquakes dating as far back as 1808 and trenching and other geological studies have identified earthquake events over many hundreds of years. Although few magnitude 6 or greater earthquakes occurred between 1906 and the late 1970s, many scientists believe that higher frequency of earthquakes since 1979 may represent a return to the higher rates of activity recorded before 1906.



Bay Area Earthquake Faults
USGS 2007

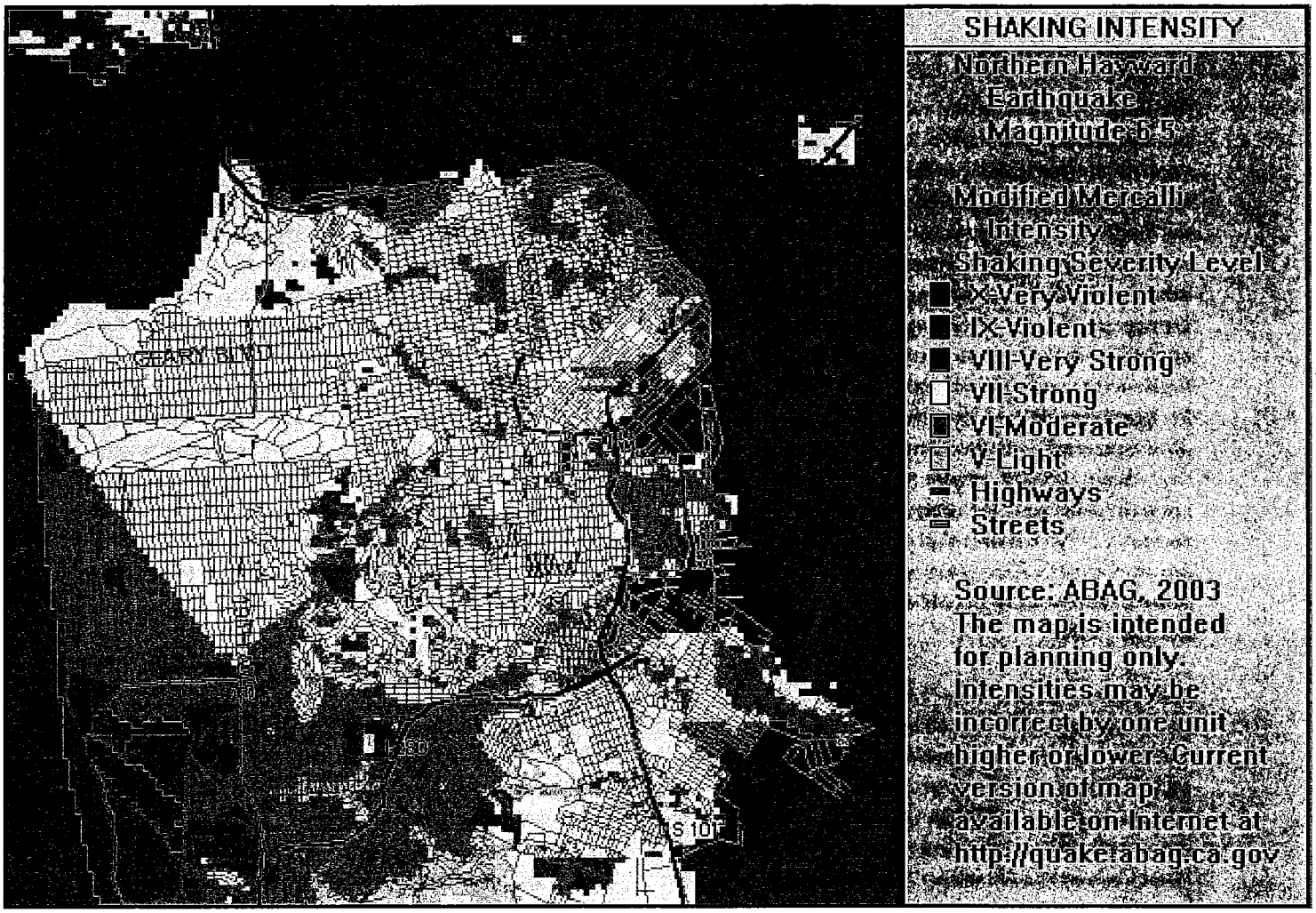
MAP 01



Ground Shaking Intensity

Magnitude 7.2 Earthquake on the San Andreas Fault

MAP 02



Ground Shaking Intensity
Magnitude 6.5 Earthquake on the Hayward Fault

MAP 03

The great 1906 earthquake and the fire that it caused resulted in about 3,000 deaths. The worst building damage occurred on "made land": artificially filled areas created on former marshes, streams and bay. Wood-frame buildings in the South of Market area and brick buildings downtown were especially heavily damaged. Large ground displacements in the filled ground along the Bay damaged utilities. Damage to the gas generating and distribution system resulted in explosions and exacerbated the spread of fire. Breaks in the underground water pipes resulted in a loss of fire fighting capability. More than 28,000 buildings within a four square mile area were destroyed over a period of three days. About 100,000 people were left homeless. Refugee camps in parks and other open spaces continued for many months. A 1908 estimate of private property damage in the fire zone was $1 billion. Some of the municipal bonds that financed the rebuilding of public facilities were not paid off until the 1980s.

The October 17, 1989 Loma Prieta earthquake occurred on the San Andreas fault about 60 miles (100 km) southeast of San Francisco. Sixty-two people were killed, including eleven in San Francisco. Forty-two of these fatalities occurred because of failures of bridges and freeways. Most of the remaining deaths resulted from the collapse of buildings in Santa Cruz and San Francisco. The total damage to private and public facilities throughout the region is estimated at more than $6 billion. Again, the damage was not evenly distributed through the City. Much of the severe damage occurred in the same areas that suffered in 1906 and those areas built on unengineered artificial fill in the Marina and South of Market districts. Many buildings severely damaged by the earthquake had structural weaknesses known to make them vulnerable to earthquake damage. They included "soft story" wood-framed buildings (with large openings and inadequate strength at the ground story) and unreinforced masonry buildings. Fire ignited in the Marina District did not spread beyond the immediate region, owing to efforts of San Francisco firefighters and benign wind conditions. About 130 buildings in San Francisco, containing more than 1,000 housing units, were destroyed or irreparably damaged. Many more could not be occupied for an extended length of time while repairs were carried out. Additional residents were displaced temporarily by a lack of utilities. The Red Cross provided overnight shelter for about 2,000 people on the night of the earthquake.

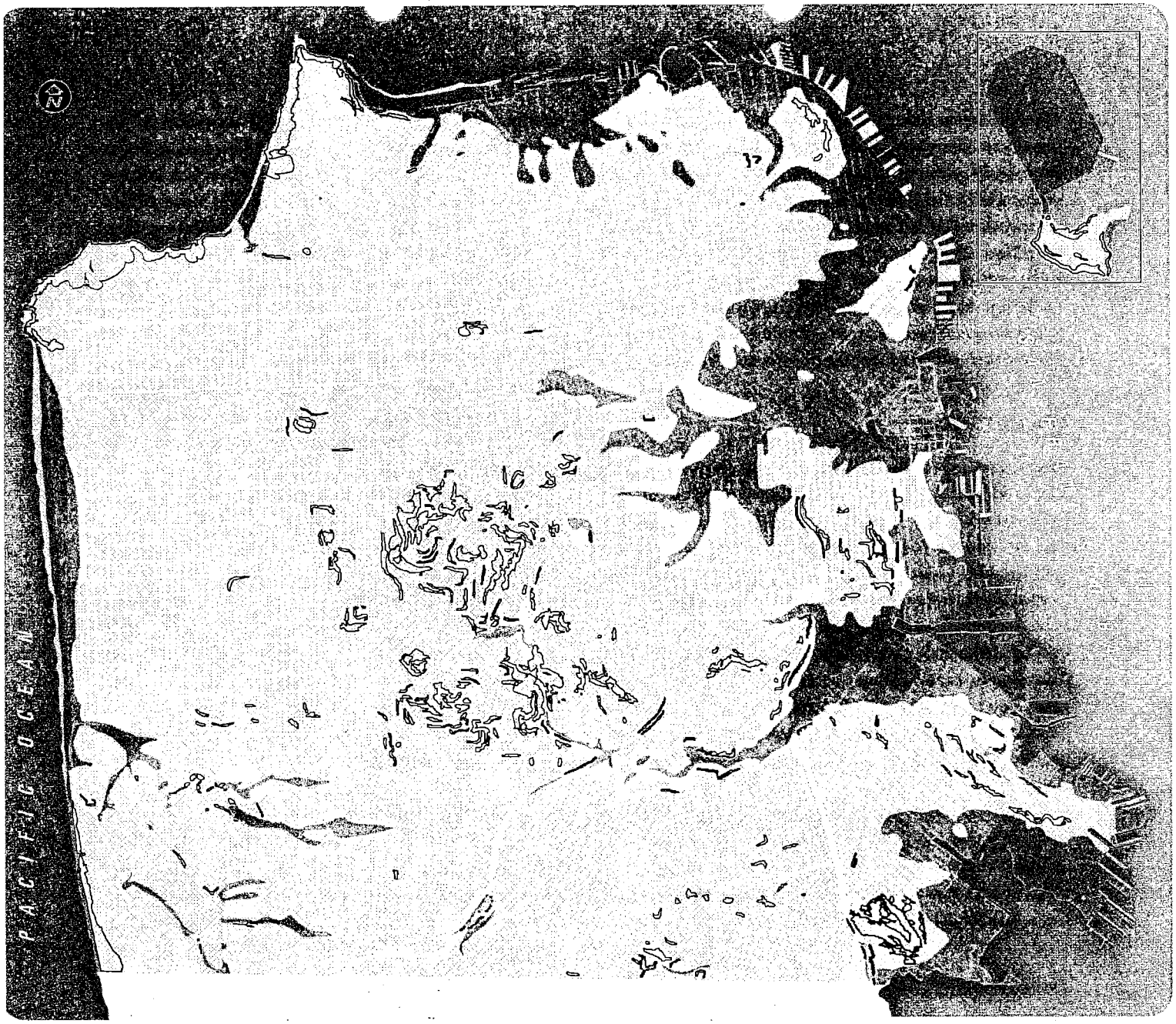
After the October 1989 Loma Prieta Earthquake, the National Earthquake Prediction Evaluation Council formed a Working Group of earthquake scientists to assess the probabilities of large earthquakes in the Bay Area. The Working Group's most recent assessment in 2008 concluded that there is a 67% likelihood of one or more major earthquakes (magnitude 6.7 or greater and capable of resulting in substantial damage) occurring in the Bay Area in the next 30 years (*http://earthquake.usgs.gov/regional/nca/ucerf/*). This means that a major quake is twice as likely to occur as it is not to occur. Most of our existing structures and infrastructure, and most of the new buildings and public works now contemplated, will probably be in place when the expected earthquake happens.

San Francisco Geology and Seismicity

The San Andreas fault system is a complex network of faults that extends throughout the Bay area. (See Map 1.) While no known active faults exist in San Francisco, major earthquakes occurring on the faults surrounding the City have resulted in substantial damage within the City. Similar damaging earthquakes in the future are inevitable.

Some of these faults are found beneath or close to the most heavily populated parts of the Bay Area. As a result, earthquakes on these faults could be much more damaging than the Loma Prieta earthquake, even if the magnitude is smaller. The Northridge earthquake of 1994 and the Kobe earthquake of 1995 illustrate how destructive earthquakes very close to urban areas can be. The Northridge earthquake, with a magnitude of 6.8 resulted in about 60 deaths and severe or total damage to about 3,000 buildings. The Kobe earthquake had a magnitude of 6.8 and resulted in more than 5,000 deaths and the loss of about 60,000 buildings, including those destroyed by fire.

The location and movement of earthquake faults do not explain all of the earthquake risk. Even in locations that are relatively far from faults, soils can intensify ground shaking, or the ground may settle or slide. The parts of San Francisco that experienced the greatest damage in 1989 were not those closest to Loma Prieta, but those with soils that magnified ground shaking or liquefied. These were the same areas that experienced damage in 1906, though the epicenter of the 1906 earthquake was in a different direction.



Seismic Hazard Zones
San Francisco, 2012

0 Miles 1

MAP 04

Liquifaction Zone

Landslide Zone

The hills along the central spine of the San Francisco peninsula are composed of rock and soils that are less likely to magnify ground shaking, although they are sometimes vulnerable to landsliding during an earthquake. The soils most vulnerable during an earthquake are in low-lying and filled land along the Bay, in low-lying valleys and old creek beds, and to some extent, along the ocean. Those soils, as well as those at steep hillsides, are at the most serious risk during earthquakes from ground shaking and ground failure such as earthquake liquefaction and landslides.

Ground Shaking

Most earthquake damage comes from ground shaking. Ground shaking occurs in all earthquakes. All of the Bay area and much of California are subject to some level of ground shaking hazard. The impacts of ground shaking will be quite widespread. The severity of ground shaking varies considerably over the impacted region depending on the size of the earthquake, the distance from the epicenter of the earthquake, the nature of the soil at the site, and the nature of the geologic material between the site and the fault. It is likely that the intensities of ground shaking will vary considerably throughout the City during any given earthquake, and that the pattern of ground shaking will be fairly consistent, reflecting the underlying soils. In general, sites with stronger soils will experience shaking of less intensity than those in low-lying areas and along the Bay, with Bay mud or other weaker soils. Some sites, particularly those with poor soils, will experience strong ground shaking in most earthquakes.

Ground Failure, Liquefaction and Landslides

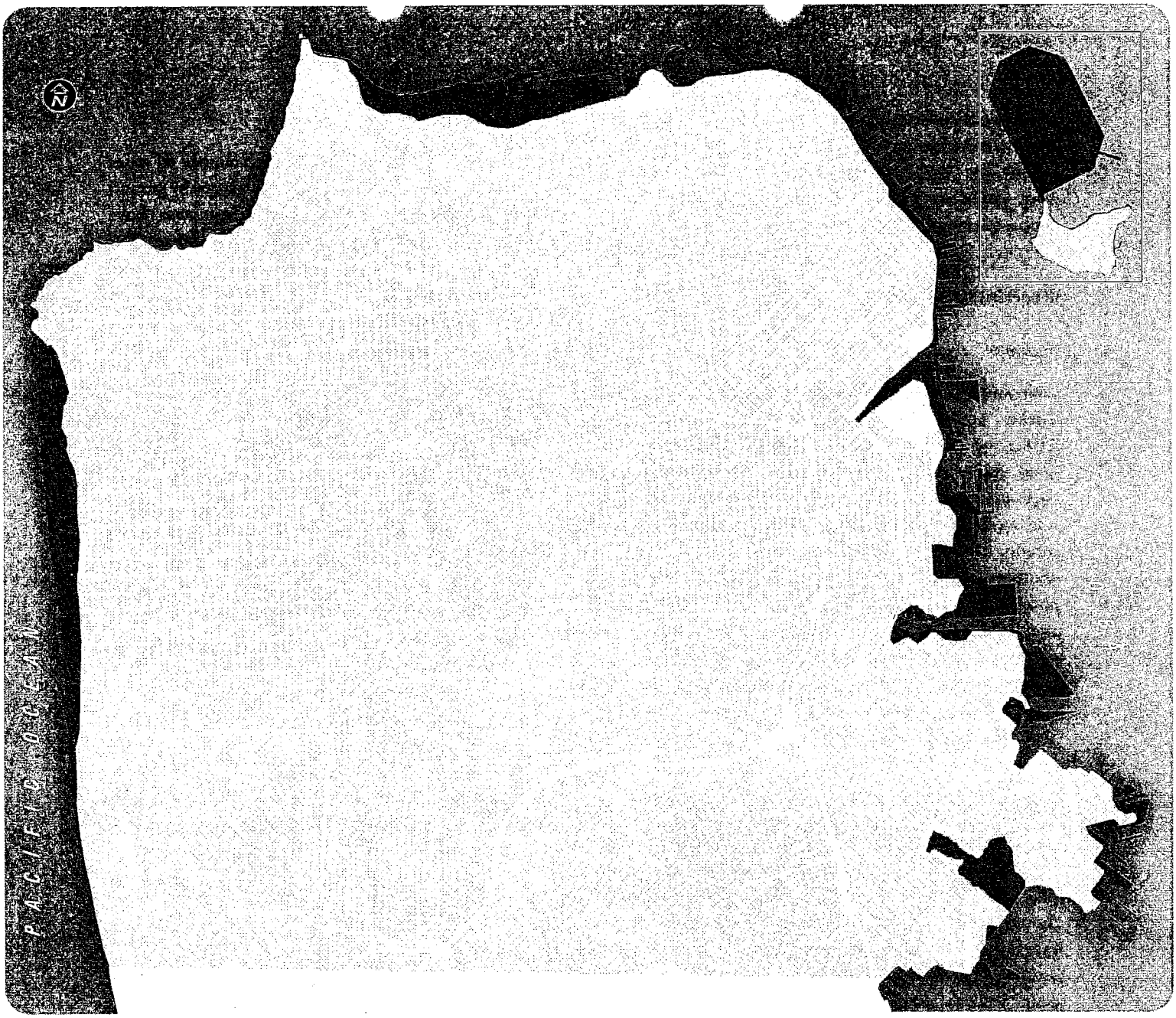
"Ground failure" means that the soil is weakened so that it no longer supports its own weight or the weight of structures. Ground failure can happen without earthquakes. For example, landsliding is a natural geological process. It is also likely to occur suddenly and catastrophically during earthquakes. The major types of ground failure associated with earthquakes are liquefaction, landslides, and lateral spreading.

Liquefaction is the transformation of a confined layer of sandy water-saturated material into a liquid-like state because of earthquake shaking. When soil liquefies during an earthquake, structures no longer supported by the soil can tilt, settle or break apart. Underground utilities can be substantially damaged. Localities most susceptible to liquefaction are underlain by loose, water-saturated, granular sediment within 40 feet of ground surface, a condition which is widespread in San Francisco. This susceptibility is exacerbated by the high risk of ground shaking from nearby active faults. The combination of these factors constitutes a significant seismic hazard in the City and County of San Francisco.

A landslide is a movement of a mass of soil down a steep slope when the soil loses strength and can no longer support the weight of overlying soil or rocks. Landslides vary in size and rate of movement. They can occur slowly over time or suddenly. Areas susceptible to landslides are those where masses of soils are weakly supported because of natural erosion, changes in ground water or surface water patterns, or human activities such as undercutting. Landslides can be triggered by heavy rains, as occurred during the high wind and rainstorms of the winter of 1995-1996 and in early 1997. Earthquakes will trigger landslides in susceptible areas, as occurred in the Santa Cruz Mountains during the 1989 Loma Prieta earthquake. A large earthquake in San Francisco may cause movement of active slides and could trigger new slides similar to those that have already occurred under normal conditions.

The California Geological Survey (CGS) has prepared maps of areas of liquefaction potential, as required by the Seismic Hazard Mapping Act of 1990. The map and evaluation report summarizing seismic hazard zone findings for potentially liquefiable soils show that liquefaction zones exist south of Market Street, in the Mission District, and at Hunters Point; in areas of artificial fill along the waterfront, especially the Marina District and at Treasure Island; and along the beaches facing the ocean. Liquefiable soils are also generally found in filled areas along the Bay front and former Bay inlets, and in sandy low-lying areas along the ocean front and around Lake Merced. The analysis also demonstrates the locations of steep slopes and cliffs that are most susceptible to landsliding. These earthquake-induced landslide hazard zones make up about 3 percent of the land in San Francisco.

This Seismic Hazard Zone Map, shown as Map 4, illustrates the areas with liquefaction potential and those subject to earthquake induced landslides. This map must be used by the City when adopting land use plans and in its permitting processes. Development proposals within the Seismic Hazard Zones shown on the official maps must include a



Tsunami Hazard Zones
San Francisco, 2012

0 Miles 1

MAP 05

Tsunami Hazard Zone

geotechnical investigation and must contain design and construction features that will mitigate the liquefaction hazard. The City's Department of Building Inspection uses these guidelines during independent building review of proposed projects.

Inundation Hazards

Tsunami

Tsunamis are large waves in the ocean generated by earthquakes, coastal or submarine landslides, or volcanoes. Damaging tsunamis are not common on the California coast. Most California tsunami are associated with distant earthquakes (most likely those in Alaska or South America, and recently in Japan), not with local earthquakes. Devastating tsunamis have not occurred in historic times in the Bay area. Because of the lack of reliable information about the kind of tsunami runups that have occurred in the prehistoric past, there is considerable uncertainty over the extent of tsunami runup that could occur. There is ongoing research into the potential tsunami run-up in California. Map 5 shows areas where tsunamis are thought to be possible.

Flooding

The National Flood Insurance Program (NFIP), which designates flood-prone areas, has recently completed mapping communities along the San Francisco Bay, including San Francisco. Areas currently designated as prone to surface flooding in San Francisco on the new floodplain maps are in portions of Mission Bay, Treasure Island, Hunters Point Shipyard and Candlestick Point, as well a significant portions of the Port. Designation as a federal flood hazard zones could necessitate the adoption of a Flood Plan Management Ordinance, which would restrict uses that could be dangerous due to water or erosion, require that uses be protected against flood damage when constructed, and require floodplain management by development in floodplain areas.

Reservoir Failure

Dams and reservoirs which hold large volumes of water represent a potential hazard due to failure caused by ground shaking. The San Francisco Water Department owns above ground reservoirs and tanks within San Francisco. The San Francisco Water Department monitors its facilities and submits periodic reports to the California Department of Water Resources, Division of Safety of Dams (DOSD), which regulates large dams.

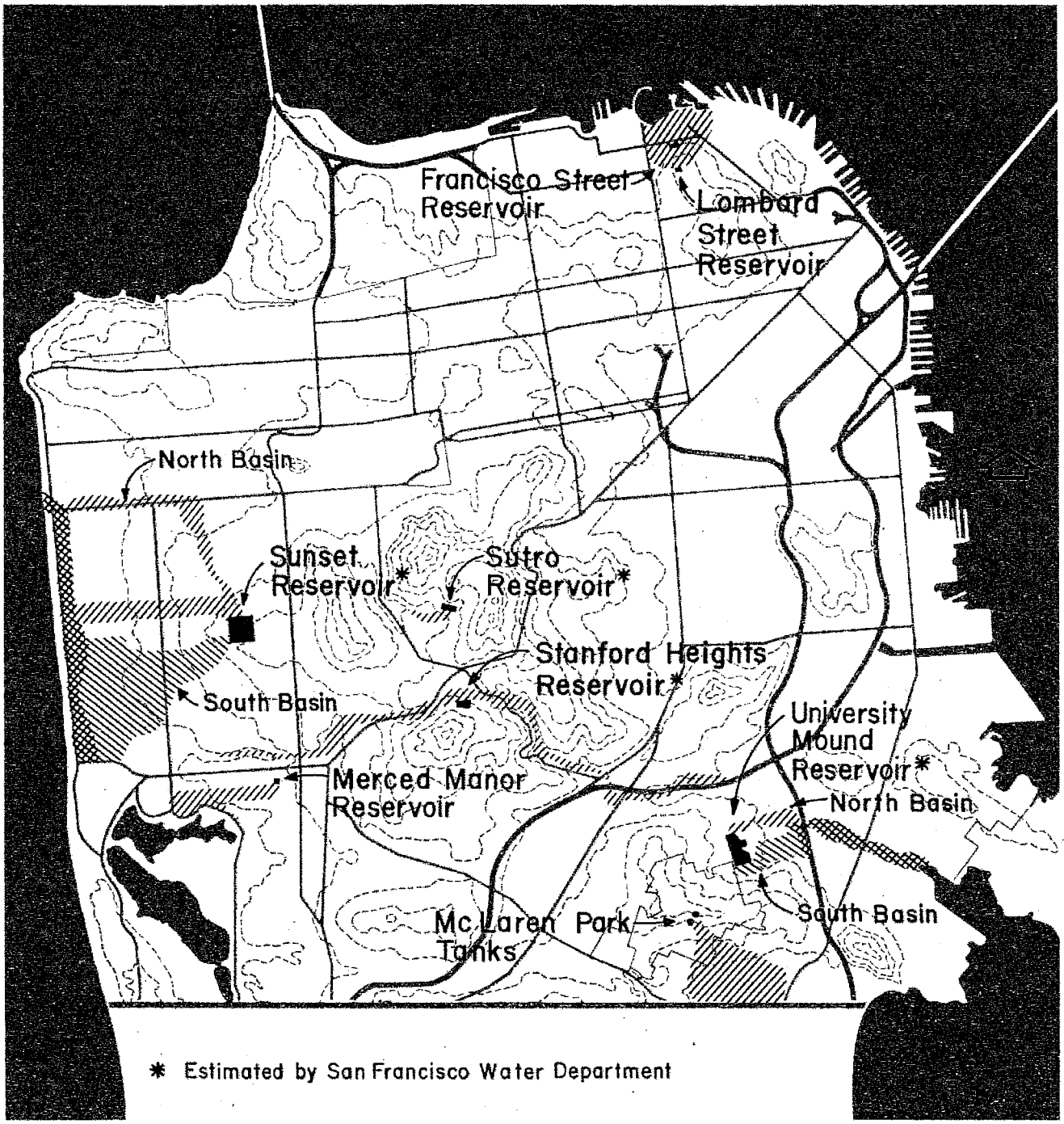
Sea Level Rise

Using multiple emissions scenarios, best available projections for California and the Bay Area currently assume 12-18 inches of sea level rise by 2050 and 21-55 inches of sea level rise by 2100, given current carbon emissions trends (see, for example, BCDC's sea level rise maps at *http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml*). These projections are likely to change over time as climate science progresses. Perhaps the most obvious and widespread consequence of sea level rise is inundation and flooding of land. Sea level rise will not only cause permanent land inundation, it will increase and expand the 100-year floodplain. Thus, the number of residents at risk would increase during storm events. Land composed of bayfront fill is at risk for inundation because of low elevation and subsidence over time due to compaction from buildings and soil desiccation. Additionally, sea walls located along the Embarcadero and along the Great Highway may be at risk for overtopping and inundation.

Impacts of Future Earthquakes

The most immediate impacts from earthquakes are deaths and serious injuries, the extent of which depends on the number of people in the area at the time, and the types of structures that they occupy. Risk is related to more than distance from the earthquake; nevertheless, about 1.26 million people live within 10 km of the likely epicenter of a magnitude 7 earthquake on the Northern segment of the Hayward fault. This is about 10 times the number of people at a similar distance from the epicenter of the Loma Prieta earthquake.

Since the 1906 earthquake, San Francisco has made strides in ways to reduce impacts of earthquakes and other disasters. Improvements in building and fire codes, modern



Potential Inundation Areas Due to Reservoir Failure

MAP 06

construction techniques, and retrofits reduced vulnerability. However, the City's population has more than doubled, and the value of its buildings has increased significantly; these increases in population and appreciated building values result in heightened risk.

Most deaths and injuries will result from the failure of buildings and other structures. The number of casualties will be influenced by the time of day of the earthquake. At night more people are in relatively safe small wood-frame structures. During the day more people could be in more hazardous and higher occupancy buildings, on vulnerable bridges and freeways, or on streets subject to falling debris. In recent large earthquakes, buildings designed and constructed with current engineering techniques generally performed well. This means that they did not collapse or pose an unreasonable threat to the lives of occupants, although they may have suffered structural damage that is difficult, expensive or even impossible to repair.

The 1974 Community Safety Element specifically examined unreinforced masonry buildings (UMBs) because of their record of poor performance in earthquakes. Eight deaths during the Loma Prieta earthquake resulted from UMBs. In the Loma Prieta earthquake about 13% of all San Francisco UMBs were damaged to the extent that occupancy was limited, while about 2% of other San Francisco buildings were damaged. To date, most of the City's unreinforced masonry buildings have been upgraded via the 1992 UMB Ordinance. However, other hazardous building types remain. Most of San Francisco's private, noncommercial buildings are wood, and are highly susceptible to post-earthquake fire conflagration. Concrete frame structures with unreinforced masonry infill panels are also a concern, as they are prone to collapse during earthquakes. Non-ductile concrete structures often fail in large earthquakes. "Soft-story" buildings, wood-frame buildings with open fronts or other extensive wall openings are also at high risk for partial or total collapse.

A major earthquake will result in substantial damage to utility systems. It is likely that fires will break out, larger and in greater number than can be controlled by available professional fire fighters. There may be releases of hazardous materials.

In addition to these physical impacts, there will be social and economic impacts. Lost housing will result in the need for both temporary, short-term shelter and for permanent housing to replace that which is completely destroyed. People with limited English language facility or limited mobility may be at increased risk. Many businesses will be seriously disrupted. Valuable historic buildings will be lost.

The Earthquake Response Plan Enhancement, a part of the Emergency Response Plan contains an analysis of the potential impact of several possible scenarios of earthquakes on the City of San Francisco. The mid-range scenario viewed by the analysis looked at magnitude 7.1 to 7.2 earthquakes on the Peninsula-Golden Gate segment of the San Andreas Fault. The analysis showed that under this scenario, injuries requiring basic or significant medical aid could range from 5,300 to 8,700, and life threatening casualties or deaths could encompass anywhere from 350 to 650 depending on the time of day and day of the week. The greatest numbers of casualties are likely to occur during the daytime, when the commuting population nearly doubles the total population, and in areas where the working population is greatest. In terms of building damage, as much as 25% of the City's private residential buildings could be effectively destroyed under a mid-range scenario quake, from either the earthquake itself or from post-earthquake fires; and up to 23% percent of the City's stock of commercial and industrial buildings could be similarly destroyed by earthquake or related fires. In terms of social impacts and displacement, nearly 92,000 households, about 28% of the total, will require new housing, and over 56,000 people, 7 percent of San Francisco's total population, would need short-term shelter, with need greatest among the elderly and disabled populations.

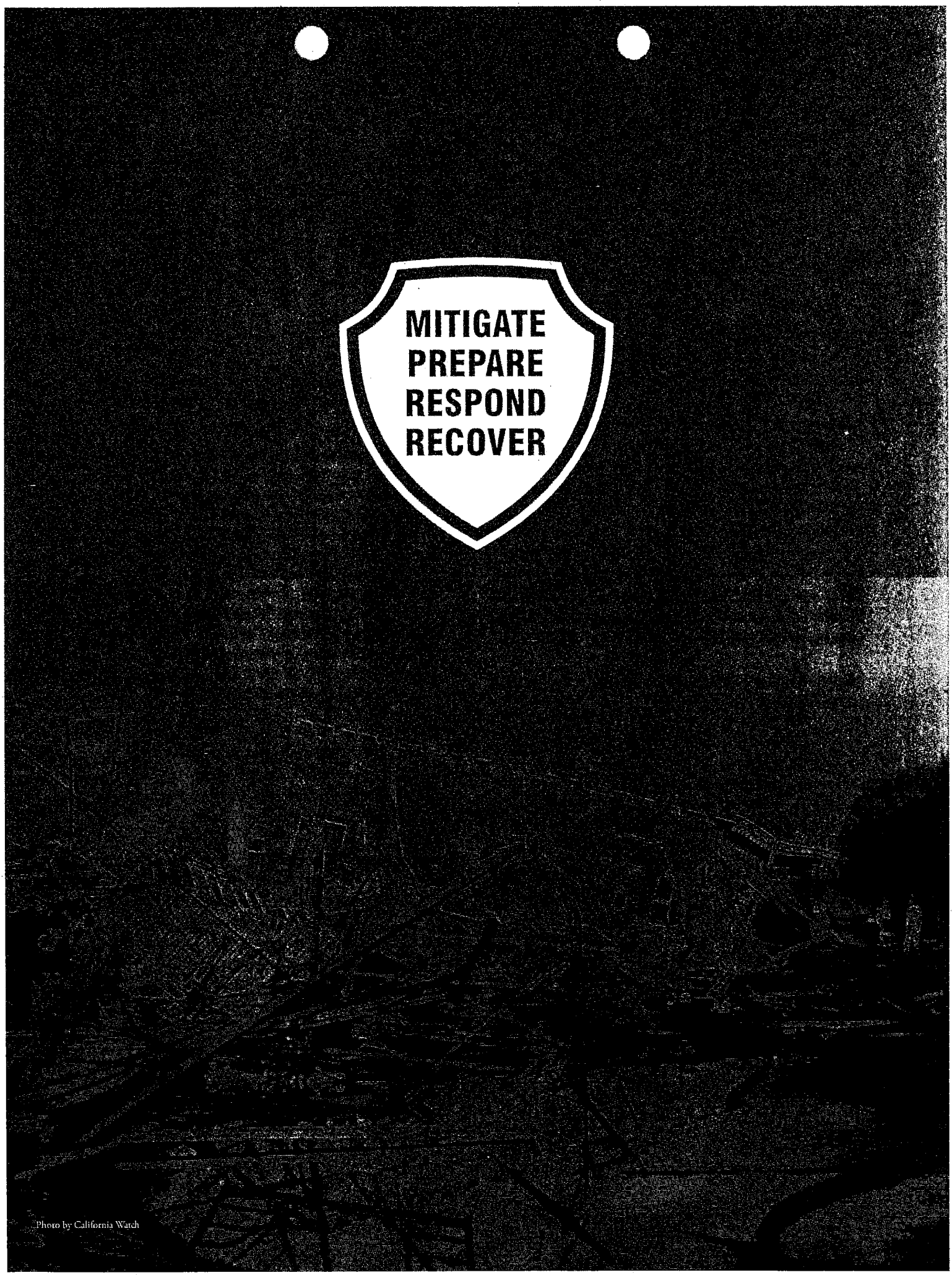


Photo by California Watch

III. Overall Objectives & Policies

One of the Priority Policies of the City's General Plan, with which all City actions are required to be consistent, is that the City achieves the greatest possible preparedness to protect against injury, loss of life, and economic impacts in an earthquake. The policies of the Community Safety Element are intended to direct all City actions to achieve this goal in the face of earthquakes and other natural and technological disasters, to reduce the social, cultural and economic dislocations of disasters, and to assist and encourage the rapid recovery from disaster should one occur. The Community Safety Element also sets forth the responsibilities of the many City departments who will need to implement these policies.

Objectives and Policies to advance this goal are classified into four general categories. They are:

1. Mitigation. Hazard mitigation policies and programs are intended to diminish long-term impacts to an appropriate level. Hazard mitigation activities, effectively carried out, reduce the need for response and recovery from disasters because they will reduce the amount of physical damage suffered.

2. Preparedness. Preparedness anticipates the effects of a disaster and takes appropriate countermeasures in advance, such as issuing warnings, stockpiling supplies, or establishing evacuation routes. Preparedness programs educate and organize people to respond appropriately to disasters.

3. Response. Response actions are those taken during an event and its immediate aftermath. Response programs are generally focused on those agencies with responsibility for providing emergency and other services to the public when a disaster occurs. The focus of response activities is saving lives and preventing injury, and reducing immediate property damage.

4. Recovery and Reconstruction. Recovery encompasses the steps necessary to bring a community back to life – fundamentals such as housing, business resumption, lifeline restoration, and provision of day-to-day services—as well as having the capacity to rebuild effectively in the post-disaster period. Reconstruction happens over the long term after a major disaster. Both recovery and reconstruction require that key decisions be made about short-term and long-term rebuilding, including the provision of housing for those displaced, resumption of services to homes and businesses, and the resumption of economic and government functions.

Communication is an important aspect of all of these steps. Knowledge about natural disasters is continually growing, and in order to deal with disasters effectively, it is critical that the public, City agencies, and decision-makers be well informed. It is also important that information about events and activities in the City be available to other government agencies and researchers. The general public needs to know how they can prepare for disaster. The City needs to facilitate contact with the community and among its various organizations and departments to be an effective responder. All stages need improved and enhanced coordination. Improved coordination among City programs, and others working to reduce the risks of disasters will result in more effective preparedness, response and recovery efforts. Coordination with outside agencies including regional, state and federal organizations will expand the City's network of support and the speed with which it responds in the case of a San Francisco disaster.

1. MITIGATION

OBJECTIVE 1

REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.

Most earthquake-related deaths and injuries will result from the failure of buildings and other structures as a result of shaking or ground failure. Damage to structures results in substantial economic losses and severe social, cultural and economic dislocations. In addition to the characteristics of the earthquake and of the site, a structure's performance will depend on structural type, materials, design, and quality of construction and maintenance. The hazards posed by buildings and other structures can be reduced by assuring that all structures achieve performance that meet acceptable safety levels, by learning more about the risks posed by vulnerable structures and developing plans to reduce those risks, and by including a consideration of natural hazards in all land use, infrastructure, and public capital improvement planning.

POLICY 1.1

Continue to support and monitor research about the nature of seismic hazards in the Bay Area, including research on earthquake prediction, warning systems and ground movement measuring devices, and about earthquake resistant construction and the improved performance of structures.

Knowledge about geologic risks in the Bay Area is substantial, but always evolving. The City needs to keep informed, through the professional contacts of its staff, and through State and federal agencies like CalEMA and the United States Geological Survey, about advances in the field. New information will be shared with the public and decision-makers.

Similarly, new techniques are continually developing in the seismic design of structures, and new data is emerging about the actual seismic performance of previously retrofitted buildings. The risks of damage to life and property can be reduced by these improved engineering practices. The City should continue to support the institutions, professional organizations and individuals who carry out research in structural safety. Special attention should also be paid to support and seek out research that identifies innovative and low-cost retrofit concepts. Once the City sets new acceptable safety levels, this research should support the engineering requirements to meet safety levels.

POLICY 1.2

Research and maintain information about emerging hazards such as terrorism threats and communication failures.

Partially due to the recent events of September 11th, the South Indian Ocean Tsunamis, Hurricane Katrina, and the Christchurch New Zealand and Easter Japan earthquakes, this field of disaster research is growing in both scope and recognition. While research into disasters focused primarily on natural disasters, sticking close to the areas of science and environmental management, newer research strains extend into terrorism and cyber-failures, biological and chemical emergencies and other community-wide crises beyond natural hazards. They also encompass research components such as organizational response to disasters, the social ramifications of hazards and disasters, particularly the effects of large-scale terrorist attacks. The City's emergency management departments should keep abreast of evolutions in this field of research, particularly as new threats emerge and as new methods of mitigating those are developed. DEM should also continue its work with the San Francisco Citizen Corps Council, modeled after the national Citizen Corps program established after the

September 11th terrorist attacks, which aim to elevate the level of networking, emergency training and outreach to the public.

Regulations for New Development

The State of California requires the use of the California Building Code, based on the model International Building Code (IBC) prepared by the International Code Council (ICC). The International Building Code, prepared by the International Code Council, became effective as the model building code for San Francisco on January 1, 2008. Buildings built to current code provisions are expected to resist damage from minor earthquakes, experience some non-structural damage from moderate earthquakes, and incur non-structural and some structural damage (but not collapse) in major earthquakes (Specially-regulated buildings such as hospitals are designed for better performance). The Code is continually updated as knowledge grows about how structures respond to earthquakes. Recent earthquakes in Northridge and Kobe have demonstrated that buildings that incorporate current engineering knowledge about earthquakes generally perform well in earthquakes.

Local governments are permitted to impose more restrictive standards than those in the State codes when this can be justified by local conditions such as seismicity, topography (for example hilly terrain), or climate. San Francisco adopts the California Building Code with modifications which concern the resistance to ground-shaking and hillside construction, as well as some long-standing local provisions. The San Francisco Building Code is adopted by the Board of Supervisors and implemented by the Department of Building Inspection (DBI), which reviews building plans and inspects buildings under construction to ensure that the approved plans and codes are followed.

POLICY 1.3

Assure that new construction meets current structural and life safety standards.

The Department of Building Inspection and the Fire Department have ongoing responsibility for reviewing plans for proposed buildings and inspecting buildings under construction to ensure that they are built as shown on the approved plans and in accordance with applicable codes. This includes ongoing training for plan checkers and inspectors and the involvement of professional structural and civil engineers with expertise in seismic engineering.

The engineering of complex or unusual structures requires more than the routine application of set rules. It often involves creativity and judgment in solving new design problems. Because there can be considerable independent judgment required, the involvement of more than one design professional can often shed new light on structural issues, or uncover overlooked problems.

POLICY 1.4

Use best practices to review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering regarding existing buildings.

The State of California mandates the local adoption of the California Building Code, which is adopted from the International Building Code. Buildings built to these provisions are expected to resist damage from minor earthquakes, experience some non-structural damage from moderate earthquakes, and suffer some structural damage, but not collapse; from major earthquakes (specially-regulated buildings such as hospitals are designed for better performance.) The Code is updated triennially, with a provision for additional amendments as knowledge grows about how structures respond to earthquakes. Local governments may impose more restrictive standards than those in the State code. San Francisco adopts the State code with modifications that concern the resistance to ground-shaking and hillside construction, as well as other local equivalencies. San Francisco has adopted the 2010 California Building Code with local amendments.

Chapter 34 of the San Francisco Building Code includes long-standing local provisions that supplement those of the state and model codes with regard to required upgrades of existing structures. These provisions have been updated and modified to be in coordination with the current California Building Code. In addition, the City should consider provisions that explicitly endorse or adopt consensus standards for the seismic evaluation and retrofit of existing buildings. State amendments to the model code (for DSA-regulated structures) and related model code provisions (such as those in the International Existing Building Code) provide examples to follow.

Even with this new building code, however, the local code may, in time, lag behind technology advances. For example, recent advances in elevator safety make it possible for occupants to use elevators for escape and for firefighters

to use them to ascend to fight fires, which could be critical for taller buildings. Recognizing that San Francisco is at high risk to fires due to seismic issues, the Fire Department has developed local code amendments that would make elevators in new high-rises more resistant to fire, smoke and water. The City should continue this practice of proactively reviewing and updating codes to incorporate the latest knowledge and standards of safety and seismic design.

POLICY 1.5

Support development and amendments to buildings code requirements that meet City seismic performance goals.

The design and construction methods used in buildings are critical to community safety. Current seismic codes ensure that new buildings are earthquake- and fire-resistant, and protect people inside buildings by preventing collapse and allowing for safe evacuation. However, current code requirements do not necessarily limit damage to a structure, or ensure its function post-earthquake. A number of factors support the idea that new and retrofitted buildings in San Francisco should be built for better seismic performance than the default level provided by the current building code, or give options for quantifiably improved seismic performance, and that the seismic performance expectations of the current code should be made explicit. Among U.S cities in areas of very high seismic hazard, San Francisco is unique because of its geography, urbanization, and reliance on public transportation. Damage to new buildings and developments can have magnified impacts that affect adjacent structures and the city's lifelines. Seismic improvements can often be provided with measures that increase building costs by no more than a few percent, if at all.

The Bay Area is fortunate to be home to many of the country's foremost experts in the structural and earthquake engineering professions. These professional should be encouraged to design buildings to tiered, "enhanced" levels of seismic performance that are performance-based, and developers to finance these enhanced levels, by offering incentives such as priority processing. (Similar to a LEED certification for sustainable design.) Eventually the City should consider ways to formalize such "enhanced" design levels and use them as a basis for evaluating seismic risk.

POLICY 1.6

Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.

Building codes consider soil conditions only at a very general scale. But soils conditions vary enormously throughout the City. Different soils conditions can result in very different earthquake impacts and can result in damage at other times - for example landslides. Because of the importance of soil conditions, the California Seismic Hazards Mapping Act requires that a geotechnical investigation and geotechnical report be prepared for new or renovated buildings that are constructed in Seismic Hazard Zones.

Pursuant to this act, the Department of Building Inspection requires geotechnical reports prepared by a licensed geologist and geotechnical engineer for projects in areas with susceptibility to ground failure, including liquefaction and landslides. DBI requires that foundations and structural systems be designed that are more likely to survive these hazards. DBI has procedures in codes and bulletins for requesting additional review of proposed projects the Department believes present difficult or unusual issues in areas with the potential for ground failure.

POLICY 1.7

Consider information about geologic hazards whenever City decisions are made that will influence land use, building density, building configurations or infrastructure are made.

Land use decisions should be made with hazards in mind. The Planning Commission and other City decision-makers shall be aware of and consider geologic hazards when making decisions that will affect the types and structures that will exist in the future, including potential and existing structures, land uses and their associated densities, transportation and other infrastructure. Area plans, changes to the General Plan and amendments to the Planning Code should take into consideration the hazards resulting from geologic conditions, and the effects they may have on the safety of future development, while balancing these with other community welfare concerns, ranging from safety to community health to economic security to quality of life. In order to protect City building, building codes and

technical knowledge must be as up to date as possible as new engineering expertise is gained. Keeping abreast of such information and technologies should be a priority for the City.

POLICY 1.8

Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses.

The significance of global warming, and its impact on disasters, has been clarified in recent years. Science correlates climate change with an increase in the frequency of natural disasters, and in economic losses from these disasters. Results of global warming include increasing runoff from urban storms, springtime floods from swollen rivers and rising sea levels.

Recent studies show that more than two-thirds of the measured climate change in the past 50 years has been human-induced, and human actions can also stem this tide. New urban systems to handle storm runoff, flood control structures will be needed. Continuation of the PUC's upgrade of the City sewer system is one facet of preparation, but also critical are more imaginative solutions, like capturing storm waters for irrigation, increasing urban forestry activities and other green uses.

Ways to mitigate against pending damage from climate change include installation of infrastructure systems that reuse resources, generate clean energy, and provide alternatives to automobile transportation; and implementation of policies that promote energy efficiency, renewable energy, and recycling. San Francisco's 2004 Climate Action Plan set a 2012 goal for greenhouse gas emissions, with a program for recommended emissions reduction actions. It presents next steps required over the near term to implement the Plan, including developing a process to support City departments and private entities to integrate climate protection into their standard operating procedures, to be led by SF Environment. Recent proposals for a local carbon tax, solar rebate and loan programs, grease recycling initiative, and a landmark green building ordinance are an outgrowth of this effort. The recently created San Francisco Carbon Fund also provides a city-based carbon offset program to funds local green activities.

POLICY 1.9

Mitigate and assess the risk of flooding in San Francisco by incorporating the Flood Insurance Rate Map for San Francisco and related programs from this map to mitigate against flood risks.

The National Flood Insurance Program (NFIP), managed by the Federal Emergency Management Agency (FEMA), provides for flood insurance for communities that adopt floodplain management programs to mitigate flood losses and damages. FEMA uses the Flood Insurance Rate Map (FIRM) to identify areas with 1% annual chance of flooding, and uses this as the basis for insurance rating.

FEMA approved San Francisco's application for participation in the NFIP in April 2010, and subsequently the City has amended the 2008 Floodplain Management Ordinance in order to meet the requirements of NFIP. The established flood damage reduction program provides homeowners and other property owners the opportunity to purchase federally subsidized flood insurance at affordable rates. FEMA issued a preliminary FIRM for San Francisco in 2007, and its final map has since been adopted (*http://www.sfgov.org/floodplain*).

The Floodplain Management Ordinance requires first floor of structures in flood zones to be constructed above the floodplain or to be flood-proofed with variances for exceptional circumstances. The map, as proposed, would designate portions of waterfront piers, Mission Bay, Bayview Hunters Point, Hunters Point Shipyard, Candlestick Point, and Treasure Island in coastal flood hazard zones, which may have implications for development plans and insurance requirements in those areas.

To mitigate against potential risks, the City should continue to pursue NFIP participation and use the information provided by FEMA to engage in additional floodplain improvements to at-risk areas. The City should continue to implement ordinance requirements for new construction, address flood hazards in the plans for refuse projects, and pursue substantial improvements for potential flood areas.

POLICY 1.10

Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats.

Despite best efforts to reduce greenhouse gas emissions and mitigate against future climate change, current CO2 levels are already causing changes in weather patterns, more extreme weather events, and an increase in sea levels. Even if greenhouse gas emissions were halted today, the long half life of many greenhouse gasses and the change in global ocean temperatures mean that we will be experiencing consequences of increased CO2 in our atmosphere for centuries.

Climate risks and the associated flooding due to storm surges, increased precipitation, and sea level rise have the potential to greatly increase permanently inundated land as well as expand and alter the current 100-year floodplain, making many more residents and structures vulnerable to flooding than current conditions. The City should review scientific emissions and sea level rise projections to become fully aware of risks to safety due to flooding, as well as support the institutions, professional organizations and individuals who carry out climate research.

These risks should be taken into account when making land use decisions, bearing in mind that the future landform, as well as perceptions of acceptable risk may change in the future. These risks should also be incorporated into appropriate city documents, such as the Planning and Zoning Codes, and the Planning Commission should be fully apprised of these risks as they conduct reviews.

The City should also review best practices, case studies, and current technology to mitigate these potentially harmful effects and adapt to future conditions that will reduce loss of life and loss of built structures and infrastructure. Adaptation actions should be considered for feasibility and incorporated into seismic upgrades and routine maintenance if possible. Special projects should also be considered based on cost, feasibility, and consequences.

POLICY 1.11

Continue to promote green stormwater management techniques.

As an urbanized area, San Francisco has an abundance of impervious surface. Buildings, streets, parking lots and other paved surfaces prevent the absorption of rainfall, so low lying areas of the City are particularly susceptible to flooding in heavy rains. In addition, urban storm water runoff can be highly polluted, and pollutants that go down street storm drains can have negative impacts on the sewer and storm system, contributing to system overflows. Natural systems can often be an effective supplement, helping to absorb the overflow and filter out pollutants from that runoff.

Building and site development should include natural systems wherever possible. Natural vegetation, landscaped swales and gardens included in site designs can reduce, filter or slow stormwater runoff. "Green streets" that include pervious concrete, planters and landscaped strips adjacent to sidewalks can assist the City's sewer discharge capabilities. Green roofs incorporated into buildings provide another method of absorption. Similarly, sustainable construction techniques can be used to mitigate against the effects of future disasters. Green building technologies now allow for buildings that can provide their own power and filter their own water from run-off. This helps reduce two problems associated with disasters, the need for power and the need for potable water.

POLICY 1.12

Ensure that new development on Treasure Island, Yerba Buena Island and Hunters Point Shipyard are resistant to natural disasters.

Landfill areas are at a high risk of liquefaction during an earthquake. Current plans for the development of approximately 6,000 new homes on Treasure and Yerba Buena Islands do recognize this risk, and require the seismic stabilization of the islands' perimeter.

In addition to soil stabilization, redevelopment plans should ensure new development is designed and constructed to ensure performance equivalent to that of similar structures built on firm ground.

Programs for Existing Building Stock and Infrastructure

Most of San Francisco's buildings predate modern seismic design and construction practice. Some older buildings, such as conventional wood frame houses, may not pose

extreme risk to life safety in earthquakes, but even those expected to survive an earthquake are likely to sustain much more physical damage than their modern counterparts. Local and state legislation already addresses certain classes of hazardous and essential structures, such as UMBs and hospitals, but significant risks remain. Earthquake risk reduction requires an enhanced understanding of the current building stock, followed by focused efforts to address critical conditions in public and private buildings. The CAPSS program has undertaken both this enhanced understanding as well as laid out a 30-year plan for implementation of the CAPSS recommendations for private buildings. In addition to existing buildings, programs should be implemented to prepare existing infrastructure for a large scale disaster.

POLICY 1.13

Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks.

A significant earthquake could impact more than 25,000 buildings in the City, making them unsafe to occupy. This level of damage would impact where people live, gather, and work. The loss of the numerous facilities where people address their day-to-day needs would severely impact residents' abilities to stay in or return to their homes.

At particular risk are non-ductile concrete frame buildings, which perform poorly in earthquakes, with notable collapses having occurred in the 1971 San Fernando, 1985 Mexico City, and 1994 Northridge events. Buildings of these types exist in San Francisco but have not been inventoried. Non-ductile concrete frame buildings were constructed as factories, warehouses, or office buildings in the densest parts of the City until the San Francisco Building Code was changed in 1976 to require ductility. ABAG estimated that more than 30% of the commercial building stock and more than 50% of the industrial building stock is concrete, with an unknown but large number of these being non-ductile concrete. Standards for the evaluation and retrofit of non-ductile concrete buildings exist, but the engineering is more complicated and the retrofit is generally more disruptive and expensive than it is for other vulnerable structure types.

Also at risk are pre-cast concrete tilt-up buildings built before 1973, which have performed poorly in the 1971 San Fernando, 1989 Loma Prieta, and 1994 Northridge earthquakes. There are believed to be relatively few of these buildings in San Francisco, and many are used as warehouses with few occupants, but they have not been carefully inventoried. Such an inventory of vulnerable structures would assist in prioritizing where the City should direct resources.

A comprehensive approach is needed to address all at-risk buildings in the City. While San Francisco has numerous programs in place to bring public buildings into seismic compliance, addressing privately owned buildings is a political, legislative and financial challenge. To assist private property owners in retrofitting these and other challenging building types, the City should explore the development of a standard list of recommendations for retrofits, and dissemination of retrofit information. Furthermore the City should explore and develop tools to provide financial assistance for their retrofit. Particular groups to support include homeowners, commercial property owners, business owners and small institutions. And as many of these older buildings are often converted to new uses such as offices or residential units, the City should also encourage retrofits with conversions.

POLICY 1.14

Reduce the earthquake and fire risks posed by older small wood-frame residential buildings.

San Francisco's current programs for UMB and soft-story wood-frame buildings only apply to larger scale and commercial structures. Individual homes or buildings under 5 units are not required to be seismically strengthened, and therefore exist at varying levels of risk. Some individual homeowners make upgrades to their buildings voluntarily, but that number could be substantially increased with more programs designed to encourage homeowners to make safety improvements. "Soft-story" buildings, in which the ground story has much less rigidity and/or strength than the rest of the structure, pose significant hazards. Often the soft story is the result of multiple garage door openings or "tuckunder" parking. Soft-story collapses resulted in deaths in both the 1989 Loma Prieta and 1994 Northridge earthquakes.

These deficiencies can be fixed relatively easily and inexpensively, substantially reducing life safety hazards and the likelihood that the building will sustain substantial damage in an earthquake. There are currently no requirements to undertake this work, although many owners do so voluntarily. Insurance companies sometimes encourage

or require upgrade as a condition of providing insurance. The State of California requires sellers of homes built before 1960 to disclose the existence of a series of common weaknesses, including lack of foundation bolts and water heater bracing, and to provide a copy of the state publication, The Homeowners Guide to Earthquake Safety. This law does not require sellers to fix these deficiencies. The City of Berkeley has a program which rebates a portion of the City's real estate transfer tax, if the money is applied to the mitigation of seismic hazards. This program has funded over 1700 retrofits since it began in 1993. The City of San Leandro has published guidelines, and provides technical assistance to encourage owners of small wood-frame homes to reduce their seismic risks.

The City should adopt incentives and regulations to encourage relatively simple retrofit approaches that increase the structural stability and safety of smaller wood frame residential buildings, as well as consider a phased mandate for retrofits over a 30-year timeframe. The City's Soft Story Wood-Frame Seismic Hazard Reduction Program establishes an inventory of buildings with five or more units and notifies their owners of their risk. Future phases of the program should examine mandatory strengthening of larger soft story buildings. However, this strengthening may be financially difficult for homeowners , and they may not be aware of potential funding sources. The City should develop a funding "menu" with information about potential sources from loans to Mello Roos districts, to assist building owners in making upgrades.

POLICY 1.15

Abate structural and non-structural hazards in City-owned structures.

Both technical and financial resources are needed to repair and retrofit City-owned structures. The City shall utilize its capabilities to assess hazards and to create and implement bond and other funding opportunity and to carry out retrofit projects. A number of City buildings have already been structurally upgraded utilizing bond financing, including parts of the Laguna Honda Hospital and General Hospital complexes.

There are other important City-owned buildings that present seismic risks, but for which funding for retrofit or replacement have not yet been secured. Among the most critical are the remaining buildings of the Laguna Honda Hospital and General Hospital complexes and the Hall of Justice, all of which are vulnerable to severe earthquake damage. These proj¬ects should be prioritized for future bond measures.

The City's Capital Planning Committee acts as the policy body advising San Francisco's capital-planning process. Recognizing that certain kinds of public buildings are critical to the community's functioning, the Capital Planning Committee should work to establish a clear prioritization for these projects, develop an implementation program for their upgrade including funding sources (such as bond measures), and establish a timeline for the improvements.

POLICY 1.16

Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.

Older buildings are among those most vulnerable to destruction or heavy damage from a large earthquake. They may not have the more recent engineering features that make buildings more resistant to ground shaking, and many of them are located in areas near the Bay and the historic Bay inlets that were among the earliest parts of the City to be settled, and have the softest soil. They are also likely to have ornate façade structures that, in the event of an earthquake, can detach and threaten people on the street. The part of the City most vulnerable to fire, the dense downtown area, also contains many historic structures. A major earthquake could result in an irreplaceable loss of the historic fabric of San Francisco. The City needs to achieve the related goals of increasing life safety and preserving these buildings for future generations by increasing their ability to withstand earthquake forces.

When new programs are being considered to abate hazards posed by existing buildings and structures, the likely impacts of those programs on historic buildings must be thoroughly investigated. The resulting programs should encourage the retrofit of historic buildings in ways that preserve their architectural design character while increasing life safety. When development concessions, transfers of development rights or City funds are granted to promote preservation of historic buildings, there should be reasonable measures taken to increase the building's chances of surviving future earthquakes.

POLICY 1.17

Create a database of vulnerable buildings, seismic evaluations, and seismic retrofits to track progress, record inventories, and evaluate and report on retrofit data.

By maintaining a database of seismic retrofit data, the City has the ability to allow progress of mitigation activities and meet measurable goals, as well as learn valuable information about retrofit and vulnerability patterns, and develop unique solutions to problematic retrofit patterns. The City can use this data and analysis as feedback on how well certain programs are working as a base for evaluation and improvement. Regular reporting of the data can also inform the general public about specific, realistic risks and triumphs on the city's seismic status.

Lifelines

San Francisco's lifelines are part of regional systems that extend well beyond the City's boundaries. They include city services such as water, sewer and power provision, communication networks such as phone, radio, television and Internet, and transportation infrastructure. State and private agencies operate some of the regional lifelines. Caltrans operates most of the regional transportation network, which is vulnerable to earthquake damage resulting in significant impacts on San Francisco.

Disruption is inevitable in the event of a disaster. Many areas may be without power, at least temporarily, during some portion of the first 72 hours or longer. Natural gas systems will probably experience breaks in major transmission lines and innumerable breaks in the local and individual systems, particularly in areas of poor soils. Telephone communications will be hampered by overloading resulting from many calls being placed and from phones knocked off hooks. Cellular networks may be overwhelmed, and depending on locations of damage, radio and Internet capabilities may be limited. Damage to the City operated water system may result in many areas being dependent on tanker trucks to provide water. Sewage collection systems and sewage treatment facilities on poorer soils near the Bay are likely to suffer damage, resulting in the discharge of raw sewage into the Bay. Impacts to transportation systems will definitely include power outages, disabled traffic lights, and closed roads and bridges; and may also extend to transit networks including BART, bus and rail. However, with planning and mitigation, the extent of these disruptions can be minimized.

POLICY 1.18

Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.

In the case of a disaster, two of the most critical networks will be the City's water system and its sewer and sanitation lines. Upgrades are already underway: The Water Department and the Department of Public Works have ongoing programs to replace vulnerable water mains and sewers and to improve performance of the systems during earthquakes by including system segmentation, safety shut-off systems and redundant back-up systems or other methods of reducing damage and providing alternative sources of service. The San Francisco Public Utilities Commission is undertaking a Water System Improvement Program to strengthen the Hetch Hetchy water transmission system against earthquake damage, with completion anticipated by 2015. A connecting pipeline is currently under construction to connect the region's major water supply systems of the Hetch Hetchy, managed by the SFPUC, and the reservoirs in Calaveras, Amador and Alpine counties managed by the East Bay Municipal Utility District (EBMUD), which will enable water to be distributed from one Bay Area system to another in the case of failure. However, aging infrastructure in the City's sewer and sanitation system is a concern – beyond ailing pipes, the City's tunnels, pump stations and treatment plants need upgrades and repairs. The SF Sewer System Master Plan project currently underway at the PUC will eventually provide a detailed roadmap for these major improvements, and provide a plan for funding these improvements.

Other upgrades underway include Pacific Gas and Electric's seismic program replacing vulnerable gas lines, and Caltrans' bridge and highway retrofit programs. BART is in the midst of a system wide seismic upgrade project; the City should lobby for continued seismic retrofit and disaster-resistance measures on our regional transportation systems such as Caltrans and AC Transit. More upgrades are needed to PG&E's electric system to reduce the risk of service disruption to customers, including transmission improvements, replacement of vulnerable transformers, circuit breakers, and other at-risk components of the electric system. The City should require a specific plan detailing these improvements, and a timeline for their implementation.

POLICY 1.19

Mitigate against damage to City systems and infrastructure through awareness of threats posed by new forms of hazards such as terrorism and communication failures.

While San Francisco does maintain some risk of terrorism, it is more likely at risk of deliberate acts intended to impact its service and communication networks. Often the objective of such acts is not destruction or death, but disturbance - a visible impact to the City's public services, economies, and social networks; and its sources can include vandals, mentally disturbed individuals, domestic terrorist groups, disgruntled residents, and past or present City employees. Critical facilities include the City's communication systems including its fiber-optic data network, and network data, its physical infrastructure such as its water and power systems, important public facilities upgrades to enhance security, through physical security measures, cyber protection measures, and tight security procedures and policies should be made as technology and practices improve. Redundant networks will help ensure that incidental failures to not have grave impacts.

One such network is the Mayor's Emergency Telephone System (METS), which provides communication to key agencies and individuals in a disaster, linking City departments, fire and police stations with citywide call boxes in the case of an emergency. The METS telephone system is also connected to the State of California's satellite telephone system for direct communication with the Governor's Office of Emergency Services in Sacramento, as well as the emergency operations centers of surrounding counties. Another network is the 800 MHz trunked radio system that links the City's public safety departments and first responders including police and fire, which will help to avoid the kinds of communications failures that occurred during New York's September 11th tragedy.

POLICY 1.20

Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach areas and special populations.

Strong communication systems are critical to a City's functioning in a hazard scenario. Communication will be necessary in the response phase immediately following a disaster, and continued conveyance of recovery efforts and their progress is an important aspect of the reconstruction period. The City should have redundant networks in place to communicate at all levels- to internal staff and emergency response personnel, to convey public information, to ensure communication with special needs populations such as the hearing impaired or non-English speakers.

In addition, existing neighborhood organizations can develop local models that serve the same purpose. Development of a neighborhood communications plan can allow community members to keep in touch with – and keep track of – their neighbors, particularly the elderly or disabled that may be most in need of support during a time of emergency. Elements of this plan could include phone trees, text message trains, and the establishment of physical block captains to perform door-to-door checks if necessary.

POLICY 1.21

Ensure plans are in place to support populations most at risk during breaks in lifelines.

As events have repeatedly shown, from the Loma Prieta earthquake in 1989 to Hurricane Katrina in 2005, the most vulnerable populations become even more vulnerable when their lives and communities are disrupted by disasters. Gaps in transit service can drastically impact immobile populations such as the elderly, poor and medically fragile, especially in terms of their access to medical care. Loss of electrical power can also be a problem for homebound, medically dependent individuals. Programs to notify officials, especially power providers, of these individual locations should be developed so that patients who may be unable to help themselves during a power outage or any other emergency can get necessary support, including continuing medical care for chronic conditions and delivery of prescription refills.

Several programs already exist among City agencies and partners that provide support to vulnerable population planning, including the Care and Shelter Workgroup led by DEM and the Human Services Agency, the Disability Disaster Preparedness Committee led by the Mayor's Office on Disability, and preparedness work performed by SFCARD. City agencies involved in disaster planning and serving vulnerable populations also participate in efforts to coordinate service providers to enable them to continue

critical operations post-disaster, such as performing wellness check-ins on dependent clients. The In Home Supportive Services program of the Human Services Agency has 20,000+ clients who receive their services, and social workers assigned to the program have plans in place to do a post-disaster check on those consumers who are identified as being at highest risk in a disaster. DEM supports SF Paratransit, the paratransit broker for SFMTA, on emergency planning to ensure transportation services continue post-disaster for people with mobility disabilities, and coordinate primary feeding organizations that do both congregate feeding and home delivered meals to ensure that they have the capacity to maintain services post-disaster. Other service providers should be encouraged to engage in planning efforts to adopt similar policies and practices.

Hazardous Materials

Earthquake-initiated hazardous materials releases (EIHRs) are a high risk for industrialized, densely populated urban areas. San Francisco's industrial and research areas store and manufacture limited quantities of hazardous materials; and adjacent uses in close proximity means that more and more people live and work near facilities that may process or store hazardous materials. An earthquake can be the trigger for concurrent hazmat releases within a small area, and earthquake aftershocks can make hazmat releases more difficult to stabilize, causing follow-up releases. A study of hazmat releases during the Northridge earthquake found that almost 20% of industrial facilities in the area discharged potentially damaging chemicals. Efforts to minimize risk of EIHRs and related accidents are critical aspect of everyday mitigation activities.

POLICY 1.22

Reduce hazards from gas fired appliances and gas lines.

A large earthquake is likely to result in fires at a time when the water systems may be disrupted and personnel needed to fight fires may be overtaxed. One of the sources of ignition will be gas leaks from appliances. As a result of its experience in the Northridge earthquake, Los Angeles now requires installation of seismic gas shut-off valves in new buildings, in renovations over $10,000 and on transfer of ownership. The City may also encourage or require, as done in Los Angeles, the installation of shut-off valves in certain limited building types which are activated only by a major seismic shaking.

POLICY 1.23

Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.

Homes, businesses and other facilities contain many materials that, if not properly handled, can result in risks to life, health, or the environment. During a disaster, especially an earthquake, such materials could be accidentally released. The materials that generally pose the greatest hazard during a disaster are those that can, in the form of gas, spread and affect large numbers of people; those that are highly flammable or explosive; and those that are highly toxic or are strong irritants. Large earthquakes lead to release of hazardous materials while reducing the ability of emergency personnel to respond. The continued requirement of business and facility emergency plans and local inspections as part of the City's permitting process for hazardous material storage is critical to reducing an overload on public emergency response resources during a major earthquake.

POLICY 1.24

Educate public about hazardous materials procedures, including transport, storage and disposal.

Hazardous materials include chemical, physical and biological agents. Accidents such as toxic releases from facilities and vehicles, fires and explosions caused by chemical releases, and oil spills in the Bay are not uncommon. FEMA has estimated that an average of 60,000 accidents involving chemicals occur in this country every year, and cause over 200 deaths and many injuries.

Several of the City's agencies provide businesses and residents with information about disposal of hazardous materials. The City's Fire Department is responsible for administering local safety regulations for business operating with hazardous materials, and is the first responder to chemical and hazardous spill accidents, and risk/hazard assessments, capability assessments, and detailed response planning. The San Francisco Department of Public Health (DPH) enforces State and San Francisco environmental health laws, including hazardous materials storage, issues hazardous materials use permits; investigates illicit discharge and disposal of hazardous materials. The SFPUC provides residents and businesses with information (through ads and website resources) on how to properly dispose of hazardous materials including waste oils such as motor oil.

POLICY 1.25

Prepare for medical emergencies and pandemics.

Emerging infectious diseases can pose as much of a natural disaster as other types. Many residents may become ill, leaving as much as one-third of the entire workforce at home, affecting local businesses because of absence and affecting the general public through its ripple effects. The impact to the City's economy, as well as its health, may be great.

San Francisco agencies are closely monitoring avian influenza and preparing for a pandemic in our region. The San Francisco City Department Avian/Pandemic Influenza Task Force coordinates planning for the City's response to a pandemic, and continuity of operations in its wake. The Health Department has completed a pandemic flu plan and has preparations in place to coordinate with local health providers to meet the needs of special populations, and the general public. They have developed health advisories for diagnosing, reporting, and treating patients, and the health department's disease control team has been trained to evaluate suspect cases.

Public information will be critical in the case of a pandemic. The City should ensure the public is kept well informed through the Joint Information Center. The City should also ensure systems are in place to ensure continuity of services as much as possible, following plans for emergency actions if necessary because of staff absence. The City should continue to maintain necessary emergency supplies, such as antiviral medication and protective equipment, and plans to deal with a possibly overwhelming need for emergency care and beds. While local hospitals have surge capacity plans to deal with patient overflows, things may become difficult in the case of a pandemic, as medical staff may also be sick and unavailable. The City should also reach out to neighborhoods to educate them about possibilities, to enable them to develop localized plans for identifying the ill if the City's resources become inundated, and for assisting with sick individuals if hospital bed space is limited.

POLICY 1.26

Monitor emerging industries like bioscience, and ensure that state and local codes manage risks effectively.

The City of San Francisco has made it a goal to encourage bioscience industry in the City because of its economic development potential. The University of California San Francisco (UCSF) is a generator of life science and bioscience companies, and has made the Bay Area a center for the industry, and the number of companies located in San Francisco is expected to continue to grow.

Many bioscience firms contain laboratories which handle biological materials, which may generate radioactive or otherwise hazardous materials and waste. Because of this, bioscience and biotechnology facilities are governed by a strict set of federal and state regulations. Bioscience firms in San Francisco are subject to regulation by the San Francisco Department of Public Health, and are required to generate Hazardous Materials Business Plans including storage and secondary containment policies; Emergency Response Plans; and training plans to educate staff about handling and disposal. Currently, state and federal regulations seem to be sufficient to govern bioscience activities, as no local jurisdiction in the state has yet adopted health and safety controls beyond those requirements.

One particular point about the bioscience industry is that it is likely to change over time with advances in research; thus functions of the firms located in San Francisco may shift in the future. And as noted previously, state and national-level codes may lag behind technology advances. As bioscience grows, the City should monitor the industry to ensure its current safety regulations continue to be applicable to bioscience facilities. In addition, the City should encourage performance-based design and engineering technologies at a high level of performance to protect the safety of critical bioengineering research projects, particularly if facilities have the potential to be of interest with regards to bioterrorism.

2. EMERGENCY PREPAREDNESS

OBJECTIVE 2

BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.

The City must be prepared to respond quickly and effectively in the case of a disaster. In order to meet the fundamental needs of its citizens after a disaster, the City must have plans in place. Response activities must be prepared in advance, and the coordination necessary to execute them must be in place for rapid realization.

In addition to readying its own agencies and departments, the City must ensure its residents are aware and prepared for the possibility of disaster. State and local emergency response offices advise people to be prepared to be self-sufficient for 72 hours after a large earthquake. Achieving preparedness is even more critical for vulnerable populations, including the elderly and the disabled, and those in geographical areas and building types that are more vulnerable to earthquake damage.

Emergency Awareness and Training

POLICY 2.1

Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."

People and organizations that are well informed about possible disasters can take private and effective measures to reduce their vulnerability. They can also increase their effectiveness in responding after a disaster and helping others when public agencies are overwhelmed. Several of the City's agencies, including the Department of Emergency Management, the Fire Department, the Police Department, the Department of Public Works, and the Department of Building Inspection provide information to the general public on what to do in a disaster. The City's 72hours.org campaign has been successful in raising public awareness about personal steps to take in advance of an emergency. The Department of Building Inspection maintains a list of earthquake information, including information about PG&E, in its public reception and on its website.

Information accessibility can, however, be increased beyond these sources, especially in order to reach populations who may not be familiar with the City system nor are frequent visitors to City buildings. Materials should be placed in everyday materials like newspapers, alternative venues such as social clubs, community facilities or service agencies, and distributed via mobile sources at gatherings such as fairs and festivals in the City. Information distributed should be available in large print and on audio cassette for the visually impaired, as well as in a variety of non-English languages.

POLICY 2.2

Encourage businesses and homeowners to evaluate their earthquake risks.

Many businesses and residents hold a misguided perception that federal and state sources will provide financial assistance after a disaster. But the federal aid provided in a declared disaster does not protect individual homeowners. And when a major disaster hits an entire area, local governments are often unable to step up as well, being strapped simply to provide the funds necessary to repair major public infrastructure and buildings.

The most important thing the City can do is encourage residents and businesses to evaluate their own risk and the repercussions they might face from earthquake damage. Whether through a formal risk assessment, which businesses may undertake through a qualified consultant, or simply through a personal assessment that evaluates the potential for earthquake damage, property owners should consider the full range of methods of decreasing their risk, and pursue the strategy that works best for them. This risk should also be clearly communicated to tenants and upon sale of the building, and be made part of public City records.

Earthquake insurance can also provide mitigation, although it may not be for everyone. Residents of San Francisco should be made aware that standard homeowner and tenant insurance policies do not cover losses that result from earthquakes or other natural disasters, as most policies exclude "acts of God". Instead, California homeowners are entitled to purchase earthquake coverage at the time they purchase standard homeowner policy and every other year thereafter. Yet because the insurance is so costly, few do – a report issued at the drafting of this Element found that only 11 to 12 percent of recent insurance packages included earthquake coverage. The City should work with the state's insurance commissioner to encourage purchase by increasing information about and access to, earthquake insurance. Locally, there are other strategies the City government can pursue to support the purchase of earthquake insurance, such as or providing tax incentives or supporting interest rate reductions on mortgages where earthquake insurance is purchased. Tenants should also focus on getting "renters insurance," which does cover losses due to natural disaster, and businesses should focus on getting "business interruption insurance."

POLICY 2.3

Provide on-going disaster preparedness and hazard awareness training to all City employees and other responding agencies.

Under state law, all public employees are designated Disaster Service Workers. At any time during a catastrophic event, which places life or property in jeopardy, City employees could be assigned to any disaster service activity that promotes the protection of public health and safety. The Department of Emergency Management and the Department of Human Resources have been working together to develop and implement a comprehensive Disaster Service Worker Program. DEM recently conducted an optional introductory one-hour Disaster Service Worker training. The City should continue this training program and expand it to mandatory programs, so that all service workers can be trained in potential categories of risk. The City should also continue to hold multi-agency drills on a regular basis to test and refine emergency plans.

In addition to responding to the emergency, one of the post-disaster tasks of City agencies will be the resumption of normal public services as quickly as possible. City workers will be more effective emergency responders, will be able to provide necessary public service, and will be better equipped to aid in the recovery if they are not, themselves, victims of the disaster.

POLICY 2.4

Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

The Department of Emergency Management has responsibility for developing the City's Emergency Response Plan, annexes, and other emergency plan elements; supporting the coordination of the response and recovery agencies; providing emergency training opportunities; conducting and advising on functional and discussion-based exercises, coordinating activities with regional, State and federal agencies; and maintaining the Emergency Operations Center. This agency must be maintained at an appropriate level, with sufficient personnel and resources to carry out these tasks.

The agency also manages Homeland Security Grants disbursed by the federal government. In recent years San Francisco has been the recipient of a significant amount of homeland security funds, most of which were targeted for urban centers. In the future, DEM should work with the state to improve its homeland security spending, to ensure that grant money can be effectively utilized and will not revert back to the federal government.

POLICY 2.5

Maintain a comprehensive, current Emergency Response Plan, in compliance with applicable state and federal regulations, to guide the response to disasters.

The Emergency Response Plan (ERP), formerly the Emergency Operations Plan, ensures that the roles of City Agencies and others are well defined. The ERP utilizes an all-hazards approach to emergency planning, and therefore encompasses all natural and man-made hazards applicable to San Francisco. The ERP was most recently updated in December 2009. The ERP addresses the roles and responsibilities of City agencies and personnel during an all-hazards emergency response. Specifically, the ERP identifies and describes City interaction with regional, State, and Federal entities, the role of the San Francisco Emergency Operations Center (EOC), and the coordination that occurs between the EOC and City agencies. The ERP has several annexes based on hazards and local emergency support functions that provide further guidance on those aspects of emergency management. Periodic functional and discussion-based exercises based on the directives of this Emergency Response Plan should be implemented within the framework of the Department of Emergency Management's Master Improvement Plan to test plans and identify gaps in emergency management practices.

POLICY 2.6

Create a consolidated website linking all of the City's disaster-related information for the general public.

Just as the responsibilities for different disaster planning programs and actions is distributed among many agencies and departments within the City, the related information about those programs and operations is dispersed. Much information is housed within the agencies responsible for their development, and it can be difficult for the layperson to secure all the information that exists.

The City should utilize technology to redress this issue – a simple solution would be to bring together all of the varied information that exists into one website. This site should contain links to hazard maps of geologic hazards and soil conditions; to the City's adopted emergency response plans and other related plans and documents; links to programs such as BORP and NERT; to programs for property owners, incentives and other action items; and to information about emergency services and locations. It should map relevant public information such as drinking areas, evacuation routes, emergency transport pick-up locations and locations of Public Information Centers to be set up in an emergency.

Water and Supplies

POLICY 2.7

Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.

Post-earthquake fires are part of the earthquake risk San Francisco faces. Huge numbers of structures were lost in the 1906 earthquake, not due to the quake itself, but because of the spreading fires that were difficult to battle in the aftermath of the quake. Fires continue to be a great threat, particularly in densely developed areas.

The supplemental water supply systems including the Auxiliary Water Supply System, the Portable Water Supply System, cisterns, Bay water suction devices, and fire boats have been extended and strengthened since the Loma Prieta earthquake. Staffing and equipment needs of the Fire Department must also be foreseen in advance, and met. The City also needs to improve water supply systems to cover those neighborhoods not served by the Auxiliary Water Supply.

POLICY 2.8

Ensure potable water is available in an emergency.

In February 2005, the SFPUC completed an extensive Emergency Drinking Water Plan, and recent updates ensure that the region/state's water resources would be available to San Francisco if/when needed.

The plan sets forth procedures for immediate provision of critical drinking water to the City if regional and/or local water service is disrupted. The Plan locates emergency water distribution sites, and sets forth priority routes for the delivery of emergency drinking water. Beyond the primary assets used by the SFPUC to deliver water to San Francisco on a daily basis and the programs used to support those assets, the SFPUC has many alternative means to delivery water should those primary assets become partially or totally unavailable in an emergency. The SFPUC has other resources that include portable assets to move water to areas where it is needed, including water trucks, water bagging machines and portable manifolds for drinking water hydrants. In addition, the SFPUC has plans in place for mutual assistance to ensure that the region/state's water resources would be available to San Francisco if/when needed.

If San Francisco's in-city reservoirs fail, or if the water shortage is prolonged, the City has other local water sources, such as East Bay and Peninsula Reservoirs and Lake Merced. The Water System Improvement Project (WSIP) will repair, replace, and seismically upgrade the system's deteriorating pipelines, tunnels, reservoirs, pump stations, storage tanks, and dams. The program is funded by a bond measure that was approved by San Francisco voters in November 2002 and includes more than 80 projects throughout the service area – from San Francisco to the Central Valley – to be completed by midyear 2016.

POLICY 2.9

Develop agreements with private facilities to ensure immediate supply needs can be met.

Supplies that may be critical and in short supply after a disaster include food, water, medical supplies. Hospitals and service providers may also have difficulty in obtaining replacement equipment and medication. The City should coordinate agreements with private facilities such as hospitals and warehouses to ensure that reasonable quantities of these necessities can be made available to the City and its residents in case of a disaster. The City should also maintain its up-to-date list of rental agreements, for use of temporary supplies and facilities should they be necessary.

POLICY 2.10

Maintain the San Francisco Disaster Debris Management Plan

The City's Emergency Response Plan includes a response strategy, and identifies post disaster debris management as a function of Emergency Response Function 3: Public Works and Engineering. The Post Disaster Debris Management Plan establishes a strategy for removal and disposal of disaster debris. However, having much of this plan mapped out in advance will speed up its execution. Designating appropriate temporary and permanent disposal sites as part of this plan will be critical for long-term land-use planning.

Post-disaster, the Plan aims to incorporate existing waste ordinances, diverting as much waste as possible from landfills though reuse and recycling. All vegetative debris should be composted; metals can be recycled; other wastes should be separated and reused or recycled wherever possible. Disaster recycling programs seeks to follow the City's recycling program already in place, so as not to require new permits or other legal permission to be developed. The City should develop clear guidelines to direct businesses and residents as they deal with their own debris and trash removal after the disaster.

Evacuation and Access Routes

POLICY 2.11

Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

After a large earthquake or other disaster, it is likely that many streets will be impassible. This will make fire fighting and other emergency response actions more difficult, hinder the movement of residents, and interfere with debris removal and other short-term recovery activities. In order to support post disaster transportation movement, the Department of Public Works has developed priority routes for opening during an emergency or disaster. These routes include routes which connect fire and police stations, hospitals, and other critical facilities; routes to emergency drinking water distribution sites and City shelters; and routes to staging areas for Disaster Service work around the City. These routes enable the necessary clearance width for emergency vehicles and support trucks, and have been prioritized for debris clearance immediately following a disaster.

The City should ensure that the regional sequence of clearance activities is coordinated to connect with these priority routes, and that the route openings are well timed to synch with the opening of bridges and regional highways. This coordination can be directed using information from the Transportation Management Center (TMC) staffed by Caltrans, the California Highway Patrol and the MTC, and specifically from its Emergency Resource Center (ERC) which was created for procedural disaster management.

POLICY 2.12

Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.

Dependence on cars will not work well in a state of emergency. San Francisco's vehicular network is limited by bridges and freeways with little redundancy. Damage caused by the event to roadway networks, security considerations and traffic control may restrict private automobile use for months after the event. And transit is a necessary part of the Bay Area's movement. According to the 2000 US Census, 12% of San Francisco households did not own a vehicle, which, based on recent estimates (771,121 residents as of 2006), translates to well over 90,000 residents that rely on the transit system for their travel needs. Many San Francisco workers living outside of the City rely on transit to get to their jobs, making regional transit a pivotal part of our local economy. The transit network will be a critical component of response during a disaster.

Transit should be used in emergency situations to move emergency workers to sites, to deliver equipment, and for communications. Evacuation plans should incorporate public transportation to efficiently evacuate residents who do not have access to cars, and include clear methods to convey information about evacuation possibilities in advance and at the time of disaster. Immediately following a disaster, the City should utilize its transit network to restore the City's mobility – to help bring significant numbers of evacuees back to their neighborhoods, to move daily workers to jobs, and to resume day-to-day life, as soon as possible. Coordinated transit, ferry and bus services can be used to provide long-range links across counties. Temporary transportation improvements such as limited stop buses, bus-only routes and the addition of HOV lanes may help relieve overtaxed freeway segments. And clear conveyance of route information and service maps can help connect riders to services.

The Bay Area region, under the leadership of a task force that included the CalEMA, Caltrans, the Metropolitan Transportation Commission (MTC) and Bay Area transportation agencies, has developed a Trans Response Plan (TRP). This TRP, adopted in 1997, sets out a framework for a coordinated, multimodal and timely response by Bay Area transportation providers to a major earthquake or other significant emergency in the region. The resulting procedures are tested on an annual basis through tabletop and functional exercises. The procedures have also been integrated into individual operator emergency plans so that the regional response can be automatically invoked, if needed.

San Francisco, in cooperation with MTC, also has plans that address immediate emergency transportation needs, and the day-to-day transportation routes that will need to be reinstated in order for the region's activities to resume. The Transportation Coordination and Recovery Plan (TCRP) focuses on 'emergency transportation' - evacuations and the movement of emergency workers. The Regional Transportation Emergency Management Plan (RTEMP) addresses the movement needs of the general public following a major disaster. Together, the two plans are expected to result in a single, unified program for direction of the region's transportation resources.

POLICY 2.13

Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.

Water transit has the potential to provide vital transportation support in response to a natural or man-made disaster. Ferries can play a particular role in moving people and goods after a disaster because of their flexibility and size. Smaller commercial boats can supplement the role of ferries in evacuating civilians, and can also provide transit to emergency personnel and equipment in reaching disaster sites.

For disaster relief to be successful, vessels must be quickly deployed where most needed, and the response needs to be coordinated with land transit providers to get evacuees to/from the shoreline. The Trans Response Plan (TRP) includes a Regional Maritime Contingency Plan, which aims to establish this coordination through its guidelines and procedures for utilizing the Bay's water transit system in the recovery phase of a major disaster.

The Water Emergency Transit Authority (WETA), which replaced the Water Transit Authority in 2007, published their Emergency Water Transportation System Management Plan in June 2009, which lays out emergency response and communication procedures in the case of an emergency. WETA also has plans to add seven new routes through its Ferry Implementation and Operations Plan (WTA, July 2003), and will add a number of new boats and terminals. The increase in capacity gained by these new improvements would allow the Bay Areas ferries to carry over 20,000 trips per hour during a response to disaster, which is almost the evacuation capacity provided during the Loma Prieta by ferries. The City should support these plans, and should ensure coordination is in place so these new boats and facilities can be added to the existing fleet

designated by the Ferry Implementation and Operations Plan. While WETA has plans to slowly transition existing public transportation ferry services within the Bay Area region to WETA, the City should coordinate with private operators not yet transitioned to WETA, with the aim of establishing emergency aid agreements for the boats as well as the operators in the case of need.

Internal Coordination

The City agencies with lead roles during the response phase of a natural disaster, a catastrophic hazardous waste incident, a large-scale crime or terrorist attack, are the same agencies that have a day-to-day responsibility for responding to fires, accidents, crimes or other emergencies: the Fire Department, the Department of Public Health, the Police Department, the Department of Public Works, and others to a lesser extent and as needed. However, in a major disaster, the needs for assistance are greater than the resources of the usual responders; in fact this could be said to be the definition of a disaster. During and after a major disaster, additional organizations, including City agencies, other public safety agencies, and private organizations, will be called into service. Therefore, a significantly heightened level of coordination, and different type of organization, is necessary. The Department of Emergency Management is responsible for this coordination. The recently updated Emergency Response Plan provides the blueprint for coordination among city responders, other governmental agencies, non-governmental agencies involved in response (such as the American Red Cross), and the public during a major disaster of any kind.

POLICY 2.14

Support the Emergency Operations Center, and continue maintenance of alternative operations centers in the case of an emergency.

The City completed an Emergency Operations Center (EOC) in 1999 to serve as a secure well-equipped location for centralized communications and direction. This center houses the Department of Emergency Management, including its Division of Emergency Communication; and consolidates 911 calls and Fire, Police and Medical Dispatch. It is managed by the Department of Emergency Management.

However, emergency centers may be destroyed or rendered inaccessible in a major catastrophe. The City should prepare for this possibility in advance, by ensuring duplication of information and systems in multiple locations, by identifying alternative sites for temporary EOCs, and by establishing a mobile command center with the necessary technology and information infrastructure for flexible operations.

POLICY 2.15

Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

Reducing the impacts of natural and technological hazards requires extraordinary cooperation and coordination among City departments, and between departments and other governments and non-government agencies. During the immediate response period, the City will need to determine the extent and location of damage, marshal resources for response, provide information to the public, and provide critically needed services to the affected populations. The Division of Emergency Communications of DEM maintains responsibility for coordinating communication among emergency responders, private partners and citizens in San Francisco to ensure an effective and successful emergency operations system. Reporting to DEM, and assisting in preparation of departmental emergency response plans, are key staff of each department.

The City currently uses technologies such as geographic information systems and global positioning to allow wide access to everyday information, and is extending these net¬works to enhance disaster communication. The City has adopted the use of EOC information management software to increase the speed and efficiency of its operations as well as provide a method to track critical documentation and should continue to fund the licensing of this software to ensure that efficiency in critical events. San Francisco has developed an emergency text-message alerting system, AlertSF, which delivers disaster notifications to registered users, and allows users to access neighborhood specific in¬formation. It has reestablished the old World War II sirens to provide alerts to residents, and is further upgrading the system to broadcast voice instructions for responding to an emergency.

The City has established a 311 Customer Service Center, where callers will get assistance from an agent 24 hours a day, seven days a week, and will provide real-time instructions during an actual emergency.

Continuing advances in technology and information systems will enable information to be more widely, quickly, and reliably accessible. Under the direction of CalEMA, the City should keep abreast of these advances and utilize them to bolster the existing local information network. DT and DEC should explore opportunities to use technology to keep San Franciscans informed during an emergency, using the full potential of the Internet as a primary communications medium. The City should ensure redundant networks exist to communicate at all levels- to internal staff and emergency response personnel, to convey public information, to ensure communication with special needs populations such as the hearing impaired or non-English speakers.

The City should also continue to implement solutions for interoperable communications to ensure that communication is possible among departments in a disaster. San Francisco's police, fire and most other City depart-ments are on the same 800 MHz radio system, and other agencies such as the City's Municipal Railway and the California Highway Patrol are expecting to switch to the same system in near-future funding cycles. In the interim, the City should make sure that those agencies not on the same system are able to patch in during a disaster event.

Historically, public safety agencies throughout the Bay Area have used a varied network of radio frequencies and equipment, making direct intercom¬munication difficult. The Bay Area continues to focus on improving interoperable communications across disparate agencies. In 2011, the region formed the Bay Area Regional Communications System Authority (BayRICS) to oversee initiatives and projects that improve communications capabilities. BayRICS consists of representatives from San Francisco, as well as Alameda County, Contra Costa County, Marin County, Sonoma County, San Mateo County, Santa Clara County, and Cities of Oakland, San Jose, and several cities throughout the Bay Area. The region is promoting the build out of standards-based, regional communications systems, including BayWEB, a 700MHz Broadband System dedicated for Public Safety. This system will allow public safety agencies across the region to better share information and data, independent of which jurisdiction they are responding in. The City should continue to support this effort.

POLICY 2.16

Plan to address security issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.

Community violence, including looting and rioting, have recently surfaced as forces to contend with in the aftermath of disaster. Desperate situations, such as being without food, or being stranded with no expectation of rescue, can occur in the face of disaster, and such desperation can lead to rash or risky personal actions. However, many disaster researchers regard looting as rare in disasters in developed societies. Experts state that perceptions of widespread community violence, which occurred most recently in Hurricane Katrina, are often based on misinformation, and cite human tendency to misread crowds as more malevolent than they really are.

Whether violent activities such as looting do actually occur, fear of these activities is definite. Past disasters have shown people may be unwilling to evacuate because they fear the loss of their property. The City should make efforts to manage fears of looting or other criminal activity through a visible police presence across the City and assure residents their property will be protected by police officers who will remain in the City after the evacuation. The City should also maintain the ability to dispatch special mobile forces if needed to maintain peace post-disaster.

Police will be needed to deal with issues beyond looting, such as search-and-rescue activities, directing traffic or dealing with other emergency duties. Police response must be coordinated so that it can respond to both social and physical needs in the face of disaster. Law enforcement agencies, including the San Francisco Police Department and the Sheriff's Department, District Attorney's Office, agency forces such as San Francisco Municipal Railway Police Department, and institutional agencies such as the San Francisco Community College District Police Department, should work to ensure better organization among agencies, so that their magnitude can be leveraged towards the many services that will be required. The City should also maintain relationships with State and federal level peacekeepers that may be needed in an emergency, such as the Coast Guard and National Guard. Finally, security forces should establish communication with Disaster Ser-

vice Workers to mobilize civilians if necessary to support their efforts.

POLICY 2.17

Ensure the City's plan for medical response is coordinated with its privately owned hospitals.

The Department of Public Health is the City's lead health response agency in the event of a natural disaster or terrorist attack that led to a major health emergency. They should continue efforts to coordinate with Bay Area private hospitals, community based clinics and CBO's in the Bay Area.

POLICY 2.18

Ensure all Response Plans are coordinated with the Disaster Council.

The San Francisco Disaster Council is the City's central body for emergency planning, and has been accredited by the California Emergency Council. The Disaster Council is codified by the San Francisco Administrative Code, Chapter 7, and is chaired by the Mayor and composed of the Director of Emergency Services, key department heads and City officials, three members of the Board of Supervisors, and representatives of private organizations having official emergency responsibilities. The Council reviews the efforts of the Emergency Response Planning task force, and recommends emergency actions such as mutual aid plans and agreements and such ordinances and resolutions and rules and regulations for adoption by the Board of Supervisors.

In order to coordinate the actions of the various agencies throughout the City, the Disaster Council should serve as a central repository for all mitigation, preparedness, and response and recovery activities. The Disaster Council, through its contact with the State Emergency Council and the several local disaster councils within this metropolitan area, can ensure that the work of the City is coordinated with those of the surrounding region. All actions recommended this Safety Element, and developed in other efforts or documents, should be brought forth to the Disaster Council for their review and approval.

POLICY 2.19

Seek funding for preparedness projects.

A significant amount of preparedness funding exists at the state and federal level. Several recent state propositions provide funding for specific disaster mitigation projects. The Disaster Preparedness and Flood Prevention Bond Act funds storm water flood management projects throughout California. The Strategic Growth Plan education proposal authorizes state dollars for seismic safety improvements to schools and education facilities. In addition, the Department of Homeland Security has lately been a large source of funding for preparedness and mitigation projects.

Since so much of the available funding is disbursed beyond the local level, access to these funds requires coordination for project proposals. As noted above, the Department of Emergency Management is responsible for coordination of preparedness funds. Securing these grant dollars, and effective utilization of them, should remain a priority in coming years. The City should explore the creation of a grant officer specifically tasked with coordinating with state and federal grant offices, as well as designate internal coordinators to work with each individual City department as they navigate applications and grant requirements.

External Coordination

Being prepared to address the impacts of natural and technological hazards requires extraordinary cooperation and coordination beyond the City itself. San Francisco is dependent on regional systems for transportation, evacuation, supply of goods and other necessities. In order to be effective in meeting needs, the City will need to have strong working relationships with regional and local governments and agencies.

It is also important to remember that while local governments bear the responsibility of being the first responders to any emergency or disaster, our interaction with our state and federal partners is critical to the safety of our citizens and to rapid recovery from a major disaster. Like any independent municipality, San Francisco depends on these partners for pre-planning, emergency response, and post-disaster recovery.

POLICY 2.20

Enhance communications with nearby jurisdictions.

Local Emergency Planning Committees (LEPCs) are regional entities set up to enhance coordination among adjacent municipalities. LEPCs are comprised of representatives from local government, the fire service, law enforcement, the local community, and industry; and are intended to facilitate the coordination and flow of mutual aid. CalEMA Coastal Regional Branch-Mutual Aid Region 2 is the LEPC for the San Francisco Bay Area and nearby counties.

The City of San Francisco acted as the lead agency to develop a Regional Emergency Coordination Plan (RECP) to help the Coastal Region CalEMA address gaps in regional emergency plans. The plan details how the communities which make up our LECP will work together on evacuation, housing and transportation of displaced residents. It also outlines how medical professionals will interact and how to cope with threats to the water supply, among other issues. The City should continue to utilize this plan as a basis for emergency operations issues that transcend City boundaries, such as emergency transportation, evacuation and the movement of emergency workers.

POLICY 2.21

Develop and maintain mutual aid agreements with local, regional and state governments as well as other relevant agencies.

Many state and local governments and private nonprofit organizations enter into mutual aid agreements to provide emergency assistance to each other in the event of disasters or other crises. The California Master Mutual Aid Agreement has been adopted by San Francisco, as well as most cities and counties in the state. This agreement creates a formal structure for giving and receiving assistance in emergency situations. The City should expand its network of mutual aid beyond local governments to include relevant agencies such as transit providers, utilities, volunteer agencies and professional organizations for groups like health workers and emergency managers. Numerous agencies and businesses may have resources – facilities, trained staff, transportation or equipment – that can be valuable in emergencies. The City should pursue Memorandums of Understanding or other contracts with any local agencies or businesses that can be identified as resources, including the Unified School District. Discipline-specific mutual aid agreements, such as those for public works, engineering, Emergency Managers Mutual Aid, or public information, may also be useful.

POLICY 2.22

Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.

The City should continue to seek opportunities to partner with private sector businesses and organizations where possible. For example, drug stores can be used to distribute medical supplies and pharmaceuticals during emergencies, medical institutions and university health centers can be set up to provide medical treatment such as inoculations in the event of a chemical or biological emergency; sundry stores can provide educational materials to customers, such as essential items for disaster kits; hospitality sector can serve an important role in housing Disaster Service Workers; and other private businesses can help with critical donations.

Private and community-based organizations can assist with recovery activities, and in the dissemination of disaster information. The American Red Cross and the Salvation Army can be supportive partners in providing emergency shelter, food, clothing, and physical and mental health support. The City's relationships with these agencies and organizations should be mutually supportive. Local services, particularly in lower-income areas, such as food banks, senior centers, child care centers, may be ill-prepared to cope with disaster. The City should assist in developing support networks for these organizations, providing them with employee response training, assisting them in securing insurance coverage and helping to develop contingency plans for their operations' continuance post-disaster.

3. RESPONSE

OBJECTIVE 3

ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

The first days after a major earthquake or other large disaster make up the response phase. Immediate response will focus on saving life and property damaged by the disaster. The City of San Francisco has a network of emergency response strategies in place which have been discussed above. The City's Emergency Response Plan is the primary source which will direct the City's response in the case of a disaster, and describes specific responses to be undertaken by the emergency response agencies and other supporting City departments toward the recovery process, such as emergency building assessment and repairs, debris removal, and meeting the immediate needs of federal and state agencies for information. The City of San Francisco is also leading a Bay Area-wide planning effort to create a disaster plan for the nine county Bay Area plus Santa Cruz, which will detail how the counties will work together to respond to a disaster, including evacuation, housing and transportation.

Relief activities to provide aid for the population left in its wake will follow response activities. These include securing food and shelter for victims, and stabilization of day-to-day conditions for the area's remaining residents. Economic welfare, social networks, and emotional well being are as critical as the City's physical infrastructure to the City's long-term recovery.

POLICY 3.1

After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan

The Emergency Response Plan directs the City's actions after a disaster, assigning responsibility to agencies and departments. Many of the immediate actions needed to begin the recovery process, such as debris removal, emergency building assessment and repairs, and meeting the immediate needs of federal and state agencies for information, are described in the Emergency Response Plan. The Citywide Earthquake Response Plan supports this plan by providing response actions for the incident of an earthquake. Both plans should be used to guide all responsibilities and activities in the case of a disaster.

POLICY 3.2

Follow the National Incident Management System (NIMS) Procedures in declared emergency scenarios.

A major disaster will entail assistance from far beyond San Francisco's borders, involving the assistance of other Bay Area jurisdictions, the state of California and even the federal government. To coordinate this assistance, the federal government has developed a national approach to incident management, called the NIMS, to act as the common language and procedural guide bridging different entities. NIMS was developed so responders from different jurisdictions and disciplines could talk to each other in a common language, and work together better to respond to natural disasters and emergencies, including acts of terrorism. NIMS uses a systems approach to integrate the best of existing processes and methods into a unified national framework for incident management. Its concepts and practices cover incident management; standard command and management structures; and emphasis on preparedness, mutual aid and resource management.

The City's various agencies, particularly those who are its first responders, are already familiar with the NIMS system, and utilizing its framework in the development of emergency response and other plans. The City should continue this practice, and ensure it is kept up-to-date with current NIMS practices. New approaches that will improve effectiveness are likely to result in refinement of the NIMS

over time, so the City should maintain an awareness of any changes and incorporate them into its response planning and practices.

POLICY 3.3
Have plans to accept, organize and utilize convergence workers.

Post-disaster, it is likely that the City will see an outpouring of citizens willing and wanting to help with recovery efforts. Mobilization and reinforcement of these resources will require significant management by City responders. If no system is in place to harness the potential provided by these spontaneous, or "convergent", volunteers, this resource will be lost.

The City should continue the effort currently underway with the Red Cross on a plan for organizing and mobilizing convergent volunteers. The Volunteer Centers of the Bay Area have developed a program the City should review as a model for managing disaster volunteers. The City may also want to consider a civilian program similar to the Disaster Service Worker program, which deputizes non-employees to provide similar service functions after a disaster, This program should set forth how to receive volunteers, assess their skills and experience, and match them to the tasks, and be designed to work in concert with the City's ongoing disaster service volunteer programs such as NERT. The City should also, as a part of this program, identify and establish a volunteer mobilization center as a meeting point to coordinate volunteer activity post-disaster.

POLICY 3.4
Have vendors and contractors available to respond immediately after a disaster.

When a disaster strikes, essential resources for managing emergency and continuity of business operations may become scarce. The deficit of these resources may impact public safety operations, food distribution, removal of solid waste, recycling and debris, traffic control, shelter operations, and many other functions critical in a disaster. The City should address the immediacy of need post-disaster by making arrangements with local and regional contractors before disaster strikes. Pre-qualifying of contractors who can respond in emergency and who have equipment to handle the work is another solution for immediate response.

The Office of Contract Administration (OCA) maintains an emergency list of supply vendors. OCA should work with other departments to understand the types of supplies that may be necessary in the case of a disaster and have contracting options readily available, including an up-to-date list of qualified contractors. The list should contain sufficient sources for the kinds of goods that will be most in demand after a disaster, such as shelter supplies, medical supplies, etc. As-needed contracts should be readily implementable to meet emergency need, and existing contracts and franchise agreements should be reviewed for their applicability in the case of a disaster.

DPW maintains a registry of construction-related contractors. This list can be a valuable resource after a disaster. The agency should ensure it is kept up-to-date, and that old or unavailable contractors are removed on an annual basis. The City should also explore methods that will enable small and local firms, including minority- and women-owned businesses, to take a more active role in the response and rebuilding process, it may be beneficial to develop a program to train and qualify local contractors for government-backed projects.

POLICY 3.5
Develop strategies for cooperating with the media.

Having a media communication strategy is an important component of responding to a disaster. Beyond communicating to local and regional residents, the media is the means by which the outside world understands what has happened. Media coverage leads to national, even global understanding, of a disaster and its impacts. Coverage can be a primary factor in attracting public and private aid. It can also fuel demands for action, and stimulate public support for actions to prevent or mitigate disasters.

The Mayor's Office of Communication will direct all media responses, in cooperation with the Department of Emergency Management's joint information center, which will provide a centralized source for department information. The Mayor's Office's crisis communications plan should include strategies for openly and honestly dealing with the media. Procedures for disaster media relations should also ensure that the designated spokesperson – and in the case of a disaster, this may not be the usual media spokesperson - understands the depth of the disaster and the details of its impacts. Media kits should be prepared and ready for distribution as soon as possible.

There are frequently concerns about the negative impact of media coverage on a community post-disaster. Because of the nature of media, often stories can be overtaken by a focus on deaths and damage to property. Political leaders may be concerned about publicity's impact on tourism and outside investment, or fear that it could incite mass departure of business and residents. Even in the face of these fears, it is important that the City take a positive view of media operations, and cooperate with the media based on a policy of openness. Rather than restricting information, the City should work to present media organizations with a balance of information, about the kinds of public actions and safety measures that have succeeded well as those that have failed, so that coverage can go beyond simply accounting for totals of loss. A news story giving the amount of earthquake damage inflicted could just as easily include information about the number and types of structures that survived because of mitigation measures.

POLICY 3.6

Support the ability to shelter-in-place for residents.

The term "shelter in place" refers to San Franciscans ability to remain in their home while it is being repaired after an earthquake. For a building to have shelter-in-place capacity, it must be strong enough to withstand a major earthquake without substantial structural damage. This is a different standard than that employed by the current building code, which requires buildings to meet life-safety standards. In some cases a building may not collapse, but might be deemed unusable because of the level of damage. Shelter-in-place housing standards would mean that a building is safe enough to live in during the months after an earthquake, but may not be fully functional, as a hospital or other public facilities would need to be.

Supporting shelter-in-place standards can help to minimize the need for emergency housing post-disaster, keep current residents in their homes, and minimize disruption of the housing market units. This type of standard could greatly minimize recovery costs and allow communities to remain intact.

POLICY 3.7

Develop a system to convey personalized information during and immediately after a disaster.

In addition to conveying general public information about the disaster to citizens and the outside world, the City will also need to respond to more personal inquiries by impacted residents. This can include questions about what services and aid is available, as well as inquiries about the location, health and welfare of relatives or other residents.

The City should plan for an information system composed of a series of local Public Information Centers intended to convey this more personalized information to the public. These centers should be located in accessible community locations such as libraries, but should also be sited away from the centers of emergency activity. These centers should be connected to receive up-to-date information from law enforcement agencies, other City departments, the school district, -HSA, public shelters, local hospitals, and the coroner, and should also be linked to regional centers in other parts of the Bay Area. During a disaster, these regional information centers should be directly linked to consumers via the 311 City phone service.

POLICY 3.8

Establish centers to facilitate permits for repairs.

Rebuilding can be facilitated by increasing the points of access where permitting can occur. Satellite permitting centers that offer City services such as building permits, electrical, plumbing, and mechanical inspections can be one way to increase building owners' access to services in their own neighborhood, and can reduce the possibility of overload at the central permitting facilities at Planning and the Department of Building Inspection. These centers can be operated on a temporary basis, perhaps until a targeted number of buildings are brought back on line.

POLICY 3.9

Work collaboratively with nonprofit partners to assist vulnerable populations during and immediately after a disaster and to ensure resumption of social services directly after a disaster.

In addition to disrupted infrastructure such as transit and transportation, power, water, gas and sewer, phone service, the City will also face disruptions to its social services at a time when they may be most needed. The City's most vulnerable populations, including seniors, shut-ins, disabled, institutionalized or incarcerated youth and adults, children who have been separated from their parents due

to the disaster, and residents of single-room occupancy hotels and public housing, will be at risk of falling through the cracks. Hospitals and clinics may be damaged or overcrowded, schools and daycare centers will be closed, and families may be separated. Centers for special needs populations may be temporarily shut down, due to damage or unavailability of employees. Local services, particularly those meeting the needs of residents in lower-income areas, may be ill-prepared to cope.

The City should have continuity policies and plans in place for its municipally-run and municipally-funded services. One way of supporting their immediate resumption would be to establish a policy clarifying that for specified City employees, maintaining continuity of social service provision by carrying out their everyday positions is their primary role as disaster service workers. In advance of a disaster, processes should be established to ensure the continuity of payments to social service organizations under contract with the City.

The City is not, however, the only service provider that needs to plan for this inevitability. Nonprofit groups are key players in disaster response, providing food and shelter in the short term, and assisting in longer term recovery through health care and job placement. But in past disasters, lack of coordinated planning – between the City and among agencies - has resulted in gaps in aid or in redundant services. Therefore, the City should also assist local service providers, including mental health centers, substance abuse services, homeless shelters, community health centers, senior services and aids activities, so that they can resume services, to cope in a disaster. They can support religious and community organizations by providing them with employee response training, insurance coverage, and encouraging development of contingency plans.

POLICY 3.10

Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster.

The Controller's Office is the designated lead agency for the Finance and Administration Section of the Emergency Response Plan, supported by the Department of Administrative Services and the Office of the Treasurer. These groups are tasked with ensuring employee payment and compensation, and with payment of contractor and vendor accounts, in the immediate response phase of a disaster. These elements will be critical to the continuing operation of City services.

In order to ensure continuation, the Controller's Office has programs underway to ensure that payroll continues to be processed for all City workers, implementing off- site payroll processing if needed; that employee compensation is resumed; that financial and accounting computer systems can recover and resume as soon as possible; and all payments, both to City workers and to outside vendors, are processed within a reasonable time.

The City should actively encourage the use of direct deposit by all City employees, and inform all employees of the potential loss of pay in the event of a disaster for those who do not use direct deposit. Additionally, the Controller's Office should work with City employees not currently using direct deposit in order to provide backup account information that can be switched to direct deposit in the event of a disaster. The City should assist those employees without access to a bank account to open an account with a bank or credit union.

The Controller's Office will also direct the financial policies established to guide the City in its response to an emergency, particularly as it relates to personnel time, contracts, and equipment and supplies relating to the emergency. As a part of this responsibility, the Office should work with other City agencies to determine need for contracts with vendors who do not already occur on existing approved vendor lists; and set up these new vendor contracts well before the emergency occurs.

POLICY 3.11

Ensure historic resources are protected in the aftermath of a disaster.

Preservation of the City's historic resources is an immediate concern when damage is being assessed. The older construction techniques of historic buildings make them more vulnerable to damage, and if the damage is noted without recognition of the resources historic value, the building can be at risk of further damage or demolition.

Accurate information about heritage resources is fundamental to ensuring resources are not lost. Complete survey information ensures that resource documentation of relevant buildings exists, and this information can be mapped and used by assessors in the tagging of buildings post-disaster. Since the year 2000, the Planning Department has been actively engaged in survey work through

the Citywide Survey Program. The focus of the program is on neighborhoods that are undergoing long-range planning efforts or are the focus of intense development activity, but the Citywide Survey Program will continue survey efforts in neighborhoods outside of Area Plan study areas as resources become available. While that Citywide Survey is underway, the City should make use of existing survey information, including privately developed property reviews, and ensure it is made available to DBI and any other relevant contractors who may be charged with doing evaluations of damaged buildings.

Post-disaster assessment should include an analysis of the extent of the damage to historic areas and resources. In a typical assessment scenario, assessors will attach a green tag if a building is structurally sound, a yellow tag where repairs are needed, and a red tag if the structure is uninhabitable. This system should ensure sufficient protection for historic resources post-disaster, in that all tagged buildings receive further detailed evaluation considering survey information before any steps towards demolition are taken. The system could also include separate placards identifying the building as a historic resource. Without such identification, the buildings are at risk.

Policy 3.12

Address hazardous material and other spills by requiring appropriate cleanup by property owners per local, state, and federal environmental laws.

Accidental spills and releases of hazardous waste or hazardous substances can cause severe damage not only to the environment, but to the public's health. This is a particular issue for other older industrial properties with toxic spill issues as they convert to other uses or forms of development. In cases where environmental damage or hazardous conditions have occurred, the City shall require all property owners and other responsible parties to report spills or leakages and to perform clean up to the level required by local, state, and federal environmental regulations. Where such parties delay in this required cleanup, the City, working with other regulatory agencies, shall take all measures necessary to ensure the public's health and safety is protected.

4. RECOVERY AND RECONSTRUCTION

OBJECTIVE 4

ASSURE THE SOUND, EQUITABLE AND EXPEDIENT RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.

Short term recovery actions – ensuring re-connection of utilities, short term housing, re-initiation of services - are often an outgrowth of the response phase. Long-term recovery begins once many of those short-term actions are underway or have been completed – as the rubble and debris have been cleared, major urban services are restored, and daily urban operations – movement, employment, etc – are reinitiating. The actual reconstruction can typically takes 5 to 10 years, but it can be much longer, and even across the City, full recovery – return to the pre-disaster state, or improvement beyond that state – can vary considerable from neighborhood to neighborhood.

A major disaster resulting in extensive destruction in the City will require a public and private commitment to rebuild San Francisco, as quickly as possible, while providing needed interim facilities where people can live, conduct businesses, and provide services. The rebuilding of areas with extensive damage will present choices that have to be made between retaining existing land uses, regulations, land ownership patterns, circulation and infrastructure configurations, and other physical characteristics as they existed before the disaster, or, alternatively, reconsidering the area's physical patterns, or a combination of the two approaches. While these issues are being considered, the City's established development objectives and procedures (embodied in the General Plan) should be respected. A balance should be struck to enable new development to take advantage of opportunities to improve the building stock, neighborhood quality and City as a whole, while respecting the values of the past. Some areas might best be repaired and rebuilt in ways similar to their pre-disaster conditions, while new area plans applying citywide objectives may be needed in others with pervasive damage.

Preparation and planning prior to a disaster can improve the effectiveness of post-disaster efforts. Longer-term recovery and reconstruction decisions will need to be made by decision-makers including the Mayor, the Board of Supervisors, the Planning Commission and others, with considerable public involvement. Advance planning for the recovery process will improve the City's ability to make these decisions quickly, equitably, and effectively, which will profoundly influence the future of the City.

Advance Recovery Planning

POLICY 4.1

Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate rebuilding activity.

Advance recovery planning has a critical role in the City's disaster preparedness. A previously agreed-upon recovery and rebuilding planning process can reduce debates and disagreements about how to rebuild, and result in a much faster reconstruction period. Other disaster histories, including our own, have proven that rush to rebuild often takes place before the necessary planning is completed. Therefore, it is critical that the governance and planning framework for recovery and reconstruction be established before the disaster occurs

To provide direction for any planning that happens post disaster, the Mayor and the Board of Supervisors should establish an interdepartmental working group to create

a framework for recovery. The working group should be comprised of representatives from relevant City agencies and departments.

The recovery framework should outline the City's top priorities for improving the City's capacity to manage post-disaster recovery and reconstruction, and contain guidelines that outline how reconstruction planning will be undertake after a disaster has occurred. This framework should provide the basis for the eventual development of a post-disaster recovery and reconstruction plan. While such an effort cannot anticipate the impact that such a disaster might have, and therefore will not have detailed recommendations to address every eventuality, the effort can provide a vision and a framework for how our community will rebuild after a disaster. Developing and adopting this framework prior to a disaster will allow for a well throughout process and prioritization within a "normal" environment.

POLICY 4.2

As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance, to facilitate the repair and reconstruction of buildings.

The rebuilding and reconstruction efforts that will need to be undertaken after a disaster will need to be much more swift in repairing lifelines, homes, and other resources the City depends on. In the period after a disaster, the Department of Building Inspection and Planning will likely see a surge in permit applications. While the Department of Building Inspection already maintains procedures to deal with emergency repairs, the City does not have plans to deal with the sustained demand that may result from large-scale reconstruction. Upon completion of the advance recovery framework, the task force should develop a recovery and repair ordinance that help implement the framework and facilitate the repair and reconstruction of buildings following disaster.

The recovery and repair ordinance should build upon existing building and planning code standards and policies to facilitate an efficient reconstruction process, help to streamline and expedite the permitting and review process, while avoiding a hastily administered permitting process. The Ordinance should establish clear permit processing and review procedures to expedite rebuilding in the post-disaster period, while providing the amount of review necessary to ensure that reconstruction meets the City's objectives and appropriate local policies, plans, and code standards, yet is economically feasible.

The ordinance should consider policies to address nonconforming uses and buildings, explore modifications to outdated codes and standards, consider the applicability of the City's notification or other review procedures, and address historic buildings to ensure repairs maintain the integrity of the structure without adversely affecting its historic nature. The ordinance should also revise post-earthquake building inspection protocols to identify buildings that can be occupied safely despite damage and loss of utilities, allowing residents to safely shelter-in-place while waiting to make repairs.

The ordinance should create priority categories for building types, prioritizing critical response facilities first. The ordinance should also be clear on the length of time during which it is applicable. It is important that the ordinance not work at cross-purposes with other City goals. Large-scale damage to confined areas might warrant specific neighborhood-level plans or reconstruction guidelines, and these will take time to prepare. If necessary, the ordinance should allow for periods of non-building while important changes are adopted into law. The ordinance should also include sufficient provisions to ensure that it is evaluated and amendments can be made as needed, post-disaster, to appropriately address the disaster impacts.

POLICY 4.3

As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employee's skills can be used effectively towards recovery and reconstruction efforts.

New roles and responsibilities for governments will emerge after a disaster strikes. It is imperative that government be able to be nimble enough to adjust to the various roles after the disaster. The City should be willing to reconfigure offices, departments, and services to be best serve the public after a disaster.

One example of such realignment might be the need for the Planning Department or Department of Building Inspec-

tion to be decentralized and set up offices in neighborhoods that were particularly devastated by a disaster. By placing them in neighborhoods their time can be better spent on the ground understanding what type of reconstruction is necessary and possible. Another example of such realignment might call for certain departments to assist others for a longer-term as the original department's services are not required until the City is fully functioning.

POLICY 4.4

Update the advance recovery framework on a regular basis.

The advance recovery framework should be updated as necessary to reflect changing conditions, changes in City policy and technology, and changes in state and federal regulations that affect post-disaster recovery management, financing, and other processes. The task force should set, in its creation of the plan, a schedule for regular updates to ensure it keeps up with shifting community priorities as well as to keep it present and important in the public's mind.

POLICY 4.5

Develop and maintain public support for the advance recovery framework to ensure its eventual implementation.

Once an advance recovery framework is developed, its work is not over. Implementation of the framework post-disaster is its critical conclusion, and achieving this in the aftermath of a disaster will require vigilance on the City's part. The Burnham Plan, developed for the City's reconstruction after the 1906 earthquake, was never implemented, for several reasons. The plan required money from the City's taxpayers, cooperation from property owners, and strength from the City's leadership – things that were difficult to garner from populations who were not a part of its development. Whether or not one supported the specific Burnham vision or an alternative prospect, it is clear that no plan could have succeeded without community and City leadership support. Community demands for rapid reconstruction will likely be perceived by many to be in conflict with calls for post-disaster planning and time needed to complete such a process.

The City should develop an ongoing program to regularly train the City's leadership and build community support for the framework to ensure its implementation in a time-compressed, and high-pressure post-disaster environment. While there will always be tensions to rebuild quickly post-disaster, the desire for haste should not preempt the implementation of the recovery framework or undermine a potentially necessary recovery and rebuilding process. The community outreach process for the advance recovery framework should provide a vehicle to strengthen community support.

Recovery and Reconstruction Policies

POLICY 4.6

Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.

Using the pre-disaster framework as the basis for all planning, the next step is turning that framework into tangible actions to direct and manage the specific impacts of an actual disaster.

Therefore, after a disaster occurs, the City shall establish a recovery and reconstruction task force to guide the planning process and plan development built upon the City's recovery framework. The task force should be made up not only of City agencies represented in the working group, but also a range of community representatives, including business interests, nonprofits and industry leaders, policy advocates, and neighborhood representatives. The task force should also engage with and involve representatives of other counties, state and federal agencies. The task force's efforts should be directed by a designated lead agency or individual who can facilitate the recovery and reconstruction planning process and plan development, and oversee its implementation.

The task force will be responsible for the development, drafting and adoption of the post-disaster recovery and reconstruction plan, following the established framework and guidelines. Perversely, a disaster may present the City with a unique opportunity to physically, economically, and socially strengthen the City and the region; and the recovery and reconstruction plan should take advantage of this opportunity.

POLICY 4.7

Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies.

The recovery and reconstruction plan will need to prepare the City to meet immediate changing needs after a disaster. Special services and facilities will be needed on a short-term basis, including temporary housing, commercial facilities, and health and human services. It may be necessary to locate these facilities in areas not normally available for development, or at higher densities than is normally allowed. The damage may warrant reconsideration of large-scale issues such as housing locations, transit and public infrastructure such as streets.

The recovery and reconstruction plan should build upon established General Plan objectives and policies, and ensure consistency with City programs, policies, and regulations. The plan should include clear policies and programs addressing the following issues, including the following at a minimum:

- Coordination with federal and state agencies
- Coordination with other regional cities and counties
- Plans for interim housing (considered to be a part of long-term planning, because many of the housing solutions may become permanent).
- Planning for, financing and incentivizing housing repairs and construction of potentially large numbers of replacement housing units, including consideration for affordability needs.
- Land use decisions and recommended changes in response to local opportunities.
- Establishment of public reconstruction priorities

The recovery and reconstruction plan may also consider potential changes to the City's physical framework and development pattern, potentially reviewing issues such as:

- Structurally and geologically hazardous conditions and mitigation options
- Re-examination of street patterns, street design, and standards such as required width, etc.
- Designation of areas for consideration of land acquisitions, reconfigurations, consolidations, and subdivisions.
- Recommendations for changes and improvements to major transportation routes, transit networks and other lifelines.
- Revisions to City infrastructure networks, including possible undergrounding of utilities, and use of new technologies in service provision.
- Guidance for financing and advancing the City's long-term economic recovery.

POLICY 4.8

Where necessary, use public authority to expedite repair, reconstruction and rebuilding.

In the aftermath of a disaster, there may be properties that lie fallow for some time. The damage may be so severe that owners without insurance simply abandon properties; absentee owners and landlords could choose simply to not return, and there may be cases where it is not be economically feasible or possible for owner to rebuild.

The City maintains the authority to impose policies, rules and regulations to protect the public welfare, order, and security. If public welfare is at stake – for example in damaged rental properties that remain unrepaired and unoccupied, are a safety or health hazard, or have deteriorated to such a degree that they are unlikely to be restored to quality housing – the City may need to explore ways of restoring these units through partnerships with nonprofits.

POLICY 4.9

Engage the community in the reconstruction planning process.

Reconstruction is too important and too big a task for City departments to take on their own. Residents themselves must play a central role in the decisions determining how their city is rebuilt.

The leaders of the process must develop an education-based involvement process. Recovery planning efforts should not only identify, but actively engage, the varied interests of the community. They should hold citywide workshops

and utilize social media o encourage at large participation. They should also structure a planning process which fosters engagement at the neighborhood scale, through neighborhood-based workshops, committees and special issue focus groups. Citizens should be presented with options for the City's future, and with all of the information necessary to make a choice from those alternatives. Based on the information provided, and the exercises in which they are engaged, the community should come together around a vision for how they want to rebuild after a disaster, what they want their future to look like, and how, physically, that future should take shape. In the end, the entity tasked with recovery and reconstruciton planning must build public support for the plan, and further its adoption as the community's vision for its future.

The City should also help to develop community skill sets pre-disaster, on both an individual and neighborhood level, to empower residents to meaningfully participate in a post-disaster reconstruction planning process, being able to working effectively together to identify and prioritize community needs, and work collaboratively with the City to communicate these needs and ensure that they are met. Programs such as the Department of Emergency Management Community Engagement and the Neighborhood Empowerment Network help to build community capacity and develop these essential skills before the disaster strikes, so that residents are ready to participate effectively in the reconstruction planning process after the disaster.

POLICY 4.10

View recovery as a partnership with neighborhoods.

Neighborhoods can be a driving force in recovery efforts. They understand their priorities, and they have personal motivation – often lacking at the government level - to ensure projects and programs are carried out. In the worst-case scenario – where the City government is unable to meet its commitment to the residents - community-directed recovery is a good option. Pre-existing community organizations provide a ready structure for development of a strong local force that can step into roles that an overtaxed government may not be able to fill. These groups, if strong, can be the lynchpin for the rebuilding effort. And even in cases where government is prepared and able to meet its citizens' needs, its efforts can be made stronger if it views response and recovery as a partnership with its neighborhoods.

In recognition of the neighborhoods' critical role in recovery, the City should work to increase the capacity of neighborhoods and neighborhood groups. The City currently maintains a number of programs, such as NERT and the Neighborhood Empowerment Network, that empower residents and community groups to share in mitigation and recovery efforts. These programs should be viewed as part of developing framework of efforts to prepare communities in advance of a disaster, beginning with outreach and provision of information, and extending into disaster preparedness activities such as mapping projects and emergency management planning development. These programs should also include community capacity building to teach residents the skills and capacities they need to participate in problem solving activities that support post-disaster decision making around issues such as land use, transportation planning, economic development, etc.

POLICY 4.11

Promote partnerships with non-governmental agencies, including public/private partnerships, to ensure support is ready to step in after a disaster.

Public/private partnerships can be a strong tool in revitalization after a community disaster. Relationships with corporate entities, particularly those with local ties, can lead to financial and other support in reconstruction and restoration efforts. In the Broadmoor neighborhood example of New Orleans following Hurricane Katrina, public/private partnership enabled neighborhood planning, helped secure grants to fund rebuilding efforts, and led to donations of corporate services, marketing materials and even construction support. By laying the groundwork necessary for strong public/private partnerships now - by establishing relationships with universities, corporations and foundations – the City can put itself in a strong position to receive support outside of state and federal aid, which could be critical if disaster is widespread and government resources must be extended.

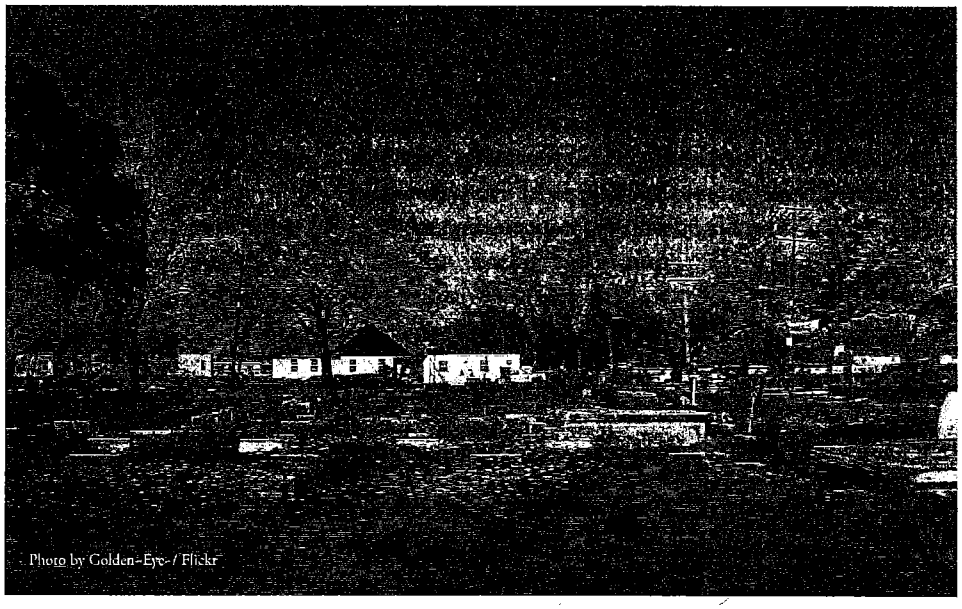
POLICY 4.12

Rebuild after a major disaster consistent with established General Plan objectives and policies.

The General Plan has been adopted, after much public consideration, to assure the preservation and enhancement

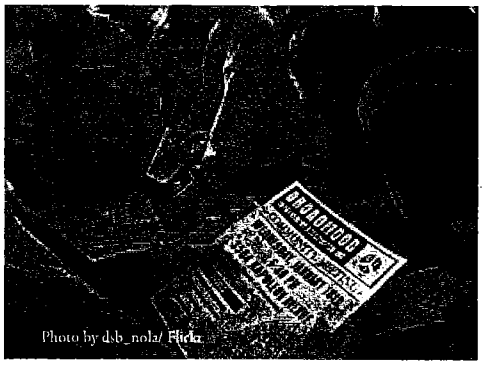
Case Study: New Orleans and the Recovery from Hurricane Katrina

The possibility of land speculation may impact the ability of residents to rebuild. In the wake of Hurricane Katrina in New Orleans, several communities have seen developers take advantage of residents' losses to purchase large swaths of property

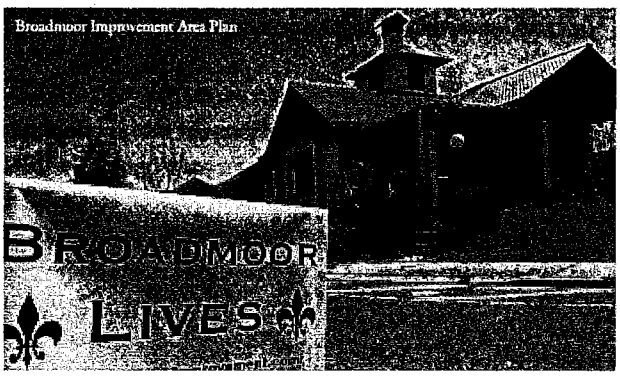


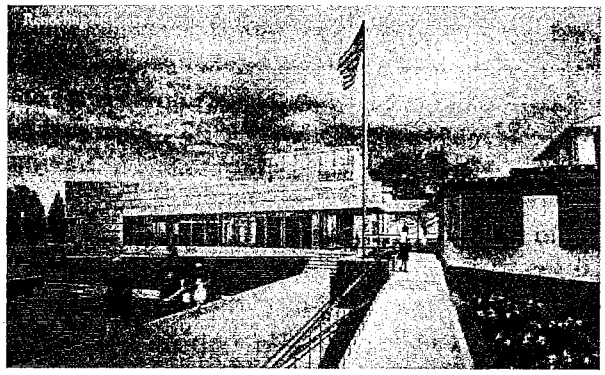
The Broadmoor neighborhood in New Orleans, which first developed a neighborhood recovery plan and is currently implementing it with the reconstruction of a local elementary school, library, and eventual community center, provides an example of results that can occur from community directed recovery, provided it is fostered with public and even private support

The result of a soft story collapse.



The Broadmoor Improvement Association played a pivotal role in response and recovery for its neighborhood.





Rosa Keller Public Library and Community Center

and safety of this very desirable urban environment. In the efforts to restore damaged areas of the City, existing development policies and regulations should be respected. Opportunities may be created for realizing General Plan policies, such as improvements to circulation systems, the provision of needed public or private open space, or hazard reduction. In areas with extensive building and infrastructure damage, coordinated rebuilding to take advantage of opportunities for neighborhood improvement, may be best achieved with an area plan approach. The rebuilding process may also enable possibilities for increasing mobility through improved and increased public transit, as well as other alternatives to the private automobile. Future Elements and Area Plans of the General Plan, transportation policies and guiding principles developed by the City should be formulated with an awareness of their potential applicability in relation to earthquake recovery.

Restoration of Housing & Infrastructure

POLICY 4.13

Support existing policies to create and maintain affordable housing choices.

Post-disaster, the City's already existing affordable housing shortage will be exacerbated. Some of the neighborhoods most vulnerable to serious damage in an earthquake provide a significant portion of the City's affordable housing stock. Much of the City's lowest-cost housing is located in older buildings, which are more likely to sustain damage in the case of an earthquake. Many of these older units are kept affordable through rent control, which through state-mandated vacancy decontrol may be increased when the unit is vacated, and does not have to be restored if the unit is replaced. And when reconstruction begins, many of these units, if significantly damaged or destroyed, will be replaced with more profitable, higher priced rental units or for-sale condominiums, shrinking the rental pool and driving up housing costs in the City.

Policies to protect affordability after a disaster are easy to identify but difficult to finance, particularly through the private market. Damaged affordable housing and single-room occupancy hotels should be replaced at as close to a one-to-one basis as possible, using cooperation among the private market, nonprofit agencies, and local, state or federal government sources to achieve a similar level of affordability as units being replaced. Eviction regulations in the post-disaster period should ensure the disaster is not misused as a way to "cleanse" projects of low-paying tenants. However, we are limited to what we can do locally, so the City should also support any policy changes at the state level that enable more local control over the methods used to stabilize rents post-disaster and long-term.

POLICY 4.14

Utilize emergency exemptions for rebuild projects with limited or no environmental impacts.

The California Environmental Quality Act (CEQA) currently allows emergency exemptions for projects which are necessary to prevent or mitigate an emergency. In cases where projects are being restored to their pre-disaster state, the sum of their impact has already been reviewed by previous assessments, and thus CEQA enables categorical exemptions for projects reconstructing to standards existing prior to the disaster. The City should ensure these statutes are utilized wherever they make sense to avoid unnecessary delay, while ensuring that new or large-scale projects which may alter the balance of the City receive sufficient review.

POLICY 4.15

Utilize green building practices in rebuilding.

Destroyed buildings and infrastructure will be a consequence of any large-impact earthquake. Salvaging their building material not only aids in the objective of reducing the amount of debris going to a landfill, it supports the rebuilding process. The City should support the establishment of new businesses that can reclaim, warehouse and resell debris for reconstruction. They should also provide incentives, either financial or otherwise, for the use of recycled materials in redevelopment.

One way the City could ensure a market for these recycled materials is to require green building in new development and redevelopment. The City has many green building requirements already in place that should be reconsidered and perhaps revised in light of projected post-earthquake reconstruction needs.

POLICY 4.16

Ensure design character and quality is paramount in consideration of all rebuilding projects.

The City's attitude toward rebuilding will have to balance two sometimes competing objectives – the need to rebuild quickly, and the desire to maintain and even improve design character. A lesson can be gleaned from the never-executed Burnham Plan, which was developed but then discarded after the 1906 earthquake: the political pressure of property owners to rebuild can overtake other interests, and thus could affect the quality of rebuild architecture and design.

It is important that the next such large-scale rebuilding not follow this same path, and that design be considered hand in hand with haste. The damage of a natural or other disaster may damage many of the neighborhoods and buildings that contribute to the City's urban design character, and it is imperative that reconstruction be done in a way that will restore and strengthen, not further weaken that character. While many of the preceding policies speak to the need for timeliness in review of reconstruction projects, the policies developed must ensure that design character and quality are not ignored in the urgency of rebuilding. All reconstruction should follow the framework put in place by the post-disaster recovery and reconstruction plan, as well as the urban design standards and residential design guidelines already in place in the City.

POLICY 4.17

Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible.

While the City's first priority should be to encourage and enable the retrofit of residential buildings to minimize damage and allow residents to shelter in place following a disaster, the Department of Emergency Management estimates that after a major earthquake, anywhere from 20,000 to 90,000 housing units may be destroyed or substantially damaged (based on projected impact scenarios driven by events on the Hayward and San Andreas earthquake faults, which are believed to present the greatest risk). Many businesses that provide necessary services to residents will also be displaced. Repair and reconstruction will take several years. The Care and Shelter Plan establishes a framework for the provision of emergency shelter for the general population, but no specific agency is tasked with the responsibility of interim housing, and no department is specifically tasked with finding temporary space for displaced businesses.

The Mayor and the Board should designate a lead agency, to deal with interim housing and business needs. This agency/agencies should work in collaboration with state and federal agencies providing post-disaster interim housing and related services to ensure that plans consider City goals and to also mediate between these agencies and the affected communities to assure that the interim housing solutions are adequate, convenient and includes necessary businesses and social services. In order to maintain relationships and connections within the community, interim housing and other facilities should prioritize keeping residents in their neighborhoods and near their pre-disaster homes as much as possible.

POLICY 4.18

Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality.

San Francisco neighborhoods have distinct characters, and often have long-term residents, businesses and institutions. Many of its neighborhoods have distinct cultural identities, and provide the bonds of community for their residents. The City, in cooperation with state and federal agencies, and community-based organizations, must manage rebuilding to maintain neighborhood character and identity, and to ensure that new development does not weaken this quality.

As such, plans should provide opportunities for those who lived in the area to return to new or repaired homes and other facilities there. The City should explore methods of providing rights to reoccupancy for tenants that must vacate their unit because of reconstruction, renovation or improvement.

POLICY 4.19

Consider homelessness in the wake of disaster.

Homelessness, and the risk of becoming homeless, are epidemics already in the Bay Area, and an earthquake will exacerbate housing issues for these populations. The Loma Prieta earthquake damaged homeless shelters and a number of the single-room-occupancy hotels that were an important source of housing for the very poor.

Prior to a disaster the City should inventory and document its pre-existing stock of homeless shelters, single-room-occupancy hotels and transitional living facilities. The City must ensure its post-disaster plans consider major social issues such as homelessness. With many properties destroyed or uninhabitable, it will be even more difficult for this challenged population to find suitable housing after an earthquake. Transition to long-term shelter will be needed for those already homeless, requiring long-term aid and greater assistance than is typically required by disaster victims.

POLICY 4.20

Ensure sufficient workforce housing during reconstruction.

Lack of housing can have a severe impact on economic recovery. If the labor pool has nowhere to live, they are unable to work. Limited housing opportunities, particularly at the lower end of the income spectrum, can curtail the available labor pool for construction during rebuilding, and the absence of permanent housing once businesses have come back online may cause local employees to seek work elsewhere.

The City should partner with business community in restoring workforce housing for the community after a disaster. The most useful assistance local businesses can provide may be financial contributions, whether they are at-large contributions coordinated by the City or direct subsidies offered to their own workers. Some possible methods include the development of employer-directed community land trusts or rental deposit and down payment grants for displaced workers.

Economic Recovery

POLICY 4.21

Have an economic recovery strategy in place before the disaster strikes.

An earthquake or other disaster can have a major impact on the economic landscape of the City. Previous earthquakes have resulted in dramatic losses in office space and subsequent relocation of businesses; in drops in tourism, which is one of San Francisco's major industries; and disproportionate impacts on small businesses, who have fewer resources with which to recover.

The City should ensure an economic recovery strategy is in place to foster business resumption, and even growth, after a disaster.

In the wake of a disaster, many local businesses, particularly small businesses, will struggle to resume activity. They may have lost assets, necessary facilities or equipment, access to employees and even their customer base. While the City's own taxed financial resources will limit direct financial assistance from City funds, there are many other things it can do to support businesses.

The City can encourage loan and grant funding from non-government sources, and further affected businesses' ability to secure loans from local banks or unions by offering government guarantees on loans. Tax incentives, including temporary payroll tax exclusion, sales tax exemption and tax write-offs on replaced business equipment and furniture, and property tax abatements, should be explored to encourage re-investment and growth of businesses.

The economic recovery strategy should prioritize the elements of the City necessary to support business activity, such as the restoration of transit and regional roadways; utilities and services available to the business community, and housing availability for the workforce. The City should work with the business community to develop this strategy, and solicit wide advice on how to facilitate business revitalization. The strategy may include recommendations to hasten the resumption of business such as loans, funding for workplace building repair, and financial assistance. Updates to the City's Economic Strategy, created by OEWD, should include plans for economic recovery in case of a disaster

POLICY 4.22

Explore expansion of the City's disaster relief programs.

The City of San Francisco provides financial relief to property owners through tax programs including disaster relief on property taxes, and participation in the state's Section 69.3 property tax disaster relief program which enables former residents who move to other counties to maintain their previous level of property taxation prior to the disaster.

The City should review other forms of tax relief to affected residents and business owners, including reductions on other fees and taxes. A temporary moratorium on payroll taxes may be one way to get business back up and running directly after a disaster. In the wake of their 2000 earthquake, Napa Valley's ordinance provided a month-long extension of a number of taxes and fees, including sales taxes; reduced property tax assessment and deferral of property taxes on damaged property, and refunds on taxes paid for unmarketable goods.

Educating citizens about the lack of access to funds in the event of a disaster is critical. The Office of the Treasurer and Tax Collector should be involved in working with financial institutions and educating the public on how to access private funds during a time when typical procedures will not be possible.

POLICY 4.23

Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures.

The Controller's Office is responsible for tracking expenditures account for the cost of responding to, and recovering from, the disaster. This includes tracking, recording, and reporting on all payments made in response to the emergency, including personnel working during the emergency, outside contractor work, and expenses such as supplies, materials, equipment and vehicle inventory records.

It is important that the tasks that are authorized are relevant and necessary, and that their completion is well-documented by the Controller's Office and its supporting agencies. This documentation will be critical in submitting disaster reimbursement claims to the State and Federal government, and ensuring support funding is received.

POLICY 4.24

Foster access to capital for individuals, families and businesses.

The Treasurer's Office should work with financial institutions to prepare for the period immediately following a disaster, encouraging them to allow customers access to money and removing restrictions that might foster this access, such as high fees early withdrawal penalties, restrictions on check cashing and cash limits at ATMs. The Treasurer's Office should also assist banks and other financial institutions if they need to relocate because of damage, by facilitating the permitting process locally, and doing what it can to allow the opening and closing of branches without the usual paperwork required by financial regulators at the federal level.

SAN FRANCISCO
PLANNING DEPARTMENT

Notice of Availability of and Intent to Adopt a Negative Declaration

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

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Date:	May 23, 2012
Case No.:	**2011.1401E**
Project Title:	**Community Safety Element General Plan Update**
Block/Lot:	Citywide
Project Sponsor:	San Francisco Planning Department Lily Langlois, (415) 575-9083
Lead Agency:	San Francisco Planning Department
Staff Contact:	Don Lewis, (415) 575-9095 don.lewis@sfgov.org

To Whom It May Concern:

This notice is to inform you of the availability of the environmental review document concerning the proposed project as described below. The document is a Preliminary Negative Declaration, containing information about the possible environmental effects of the proposed project. The Preliminary Negative Declaration documents the determination of the Planning Department that the proposed project could not have a significant adverse effect on the environment. Preparation of a Negative Declaration does not indicate a decision by the City to carry out or not to carry out the proposed project.

Project Description: The project sponsor, the San Francisco Planning Department (Planning Department), is proposing an update (amendment) to the Community Safety Element (CSE) of the *San Francisco General Plan* (General Plan). The CSE is a policy document that consists of general objectives and policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. State law requires that a city's General Plan and its elements be periodically updated in order to prepare for its future. The update to the CSE is a product of an interdepartmental taskforce which includes the Planning Department, Department of Building Inspection, the Department of Public Works, and the General Services Agency. The CSE establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster, and provides a necessary umbrella for City efforts to address hazard mitigation and post-disaster reconstruction. The CSE Update consists of four objectives, which direct the City to work toward achieving the following ends: to reduce structural and non-structural hazards to life safety and minimize property damage resulting from future disasters; to be prepared for the onset of disaster by providing public education and training about earthquakes and other natural and man-made disasters, by readying the city's infrastructure, and by ensuring the necessary coordination is in place for a ready response; and to establish strategies to address the immediate effects of a disaster; and to assure the sound, equitable and expedient reconstruction of San Francisco following a major disaster. Within this context, the CSE Update sets forth a number of policies that are intended to further the objectives and guide future decision-making related to community safety. These objectives and policies form the basis of the analysis in the attached Initial Study.

If you would like a copy of the Preliminary Negative Declaration or have questions concerning environmental review of the proposed project, contact the Planning Department staff contact listed above.

The PND is available to view or download from the Planning Department's Negative Declarations web page (http://tinyurl.com/sfceqadocs). Paper copies are also available at the Planning Information Center (PIC) counter on the ground floor of 1660 Mission Street, San Francisco.

Within 20 calendar days following publication of the Preliminary Negative Declaration (i.e., by close of business on **June 12, 2012**), any person may:

1) Review the Preliminary Negative Declaration as an informational item and take no action.

2) Make recommendations for amending the text of the document. The text of the Preliminary Negative Declaration may be amended to clarify or correct statements and/or expanded to include additional relevant issues or cover issues in greater depth. One may recommend amending the text without the appeal described below. -OR-

3) Appeal the determination of no significant effect on the environment to the Planning Commission in a letter which specifies the grounds for such appeal, accompanied by a check for $510 payable to the San Francisco Planning Department.[1] An appeal requires the Planning Commission to determine whether or not an Environmental Impact Report must be prepared based upon whether or not the proposed project could cause a substantial adverse change in the environment. Send the appeal letter to the Planning Department, Attention: Bill Wycko, 1650 Mission Street, Suite 400, San Francisco, CA 94103. **The letter must be accompanied by a check in the amount of $510.00 payable to the San Francisco Planning Department, and must be received by 5:00 p.m. on June 12, 2012.** The appeal letter and check may also be presented in person at the Planning Information Counter on the first floor at 1660 Mission Street, San Francisco.

In the absence of an appeal, the Negative Declaration shall be made final, subject to necessary modifications, after 20 days from the date of publication of the Preliminary Negative Declaration.

[1] Upon review by the Planning Department, the appeal fee may be reimbursed for neighborhood organizations that have been in existence for a minimum of 24 months.

SAN FRANCISCO
PLANNING DEPARTMENT

Preliminary Negative Declaration

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Project Title:	**Community Safety Element General Plan Update**
Block/Lot:	Citywide
Project Sponsor:	San Francisco Planning Department Lily Langlois, (415) 575-9083
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PROJECT DESCRIPTION:

The project sponsor, the San Francisco Planning Department, is proposing an update (amendment) to the Community Safety Element (CSE) of the *San Francisco General Plan* (General Plan). The CSE is a policy document that consists of general objectives and policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. State law requires that a city's General Plan and its elements be periodically updated in order to prepare for its future. The update to the CSE is a product of an interdepartmental taskforce which includes the Planning Department, the Department of Building Inspection, the Department of Public Works, and the General Services Agency. The CSE establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster, and provides a necessary umbrella for City efforts to address hazard mitigation and post-disaster reconstruction. The CSE Update consists of four objectives, which direct the City to work toward achieving the following ends: to reduce structural and non-structural hazards to life safety and minimize property damage resulting from future disasters; to be prepared for the onset of disaster by providing public education and training about earthquakes and other natural and man-made disasters, by readying the city's infrastructure, and by ensuring the necessary coordination is in place for a ready response; to establish strategies to address the immediate effects of a disaster; and to assure the sound, equitable and expedient reconstruction of San Francisco following a major disaster. Within this context, the CSE Update sets forth a number of policies that are intended to further the objectives and guide future decision-making related to community safety. These objectives and policies form the basis of the analysis in the attached Initial Study.

FINDING:

This project could not have a significant effect on the environment. This finding is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance), and 15070 (Decision to prepare a Negative Declaration), and the following reasons as documented in the Initial Evaluation (Initial Study) for the project, which is attached.

cc: Board of Supervisors; Virna Byrd, M.D.F.

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A. PROJECT DESCRIPTION

Background

This Initial Study is a review and evaluation of the San Francisco Planning Department's proposed update (amendment) to the Community Safety Element (CSE) of the *San Francisco General Plan* (General Plan). The CSE is a policy document that consists of general objectives and policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters.

California state law requires each city and county to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning." (CA Government Code §65300) General plans are intended to underlie most land use decisions. State law requires that subdivisions, capital improvements, development agreements, and many other land use actions be consistent with a city or county's adopted general plan.

San Francisco's General Plan serves to:

- Identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development.
- Provide a basis for local government decision-making, including decisions on development approvals and exactions.
- Provide citizens with opportunities to participate in the planning and decision-making processes of their communities.
- Inform citizens, developers, decision-makers, and other cities and counties of the ground rules that guide development within a community. Protect, preserve, and enhance the economic, social, cultural, and esthetic values that establish the desirable quality and unique character of the city.
- Improve the city as a place for living, by aiding in making it more healthful, safe, pleasant, and satisfying, with housing representing good standards for all residents and by providing adequate open spaces and appropriate community facilities.
- Improve the city as a place for commerce and industry by making it more efficient, orderly, and satisfactory for the production, exchange and distribution of goods and services, with adequate space for each type of economic activity and improved facilities for the loading and movement of goods.
- Coordinate the varied pattern of land use with public and semi-public service facilities required for efficient functioning of the city, and for the convenience and well-being of its residents, workers, and visitors.

- Coordinate the varied pattern of land use with circulation routes and facilities required for the efficient movement of people and goods within the city, and to and from the city.

- Coordinate growth and development of the city with the growth and development of adjoining cities and counties and of the San Francisco Bay Region.

The manner in which the general goals are to be attained is set forth through a statement of objectives and policies in a series of elements that deal with a particular topic, applicable citywide. The San Francisco General Plan includes "elements" that address state-mandated issues, additional non-mandatory elements that relate to the City's physical development, a Land Use Index, and also Area Plans. The General Plan currently contains the following 10 elements: Housing, Commerce and Industry, Recreation and Open Space, Community Facilities, Transportation, Community Safety, Environmental Protection, Air Quality, Urban Design, and Arts. The Land Use Index cross-references the policies related to land use located throughout the General Plan. Update to the Community Safety Element is the subject of this Initial Study.

In addition to the 10 elements, which may be revised or amended from time to time, the General Plan also contains 15 Area Plans.[1] Area Plans are not mandated sections of the General Plan and focus on a particular area of the City. They refine General Plan policies as they apply to a smaller geographic area and are implemented by ordinances and other discretionary actions. State law requires area plans to be internally consistent with the General Plan. The General Plan elements and Area Plans use a common format for land use categories, terminology, and diagrams.

Community Safety Framework

The project sponsor, the San Francisco Planning Department, under the guidance of an interdepartmental taskforce which includes the Department of Building Inspection (DBI), the Department of Public Works (DPW), and General Services Agency (GSA), is proposing an update to the General Plan's CSE which is analyzed in this Initial Study.[2] The CSE on seismic hazards, because the greatest risks to life and property in San Francisco result directly from the ground shaking, ground failure, and other impacts associated with large earthquakes. Hazards common in other California communities, such as ground failure, inundation, landslides, hazardous materials releases, and fire, are most likely to occur in San Francisco in association with an earthquake, and are addressed in that capacity. Other hazards, particularly man-made hazards, pose threats to the City's health and welfare, and must be considered in terms of hazard mitigation, preparedness, response and recovery.

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1 Currently, the General Plan's Area Plans include: Downtown, Chinatown, Rincon Hill, Civic Center, Van Ness Avenue, Western Shoreline, Northeastern Waterfront, Market and Octavia, Central Waterfront, South of Market, East SoMa, Mission, Showplace Square/Potrero Hill, Glen Park, and Bayview Hunters Point (formerly South Bayshore) and Hunters Point Shipyard. As of 2011, the following Area Plans are currently in preparation or are under review: West SoMa, Balboa Park, Japantown, and the Transit Center District Plan that may be formally adopted as Area Plans for inclusion within the General Plan.

2 Draft Community Safety Element. This document is available at the Planning Department offices, 1650 Mission Street, Suite 400 as part of Case File No. 2011.1401E.

The Community Safety Element establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. The San Francisco Planning Department last updated the Community Safety Element in 1997. State law requires that a city's General Plan and its elements be periodically updated in order to prepare for its future. The Community Safety Element update provides a necessary umbrella for City efforts to address hazard mitigation and post-disaster reconstruction, and plays an important role in documenting the coordination of emergency preparedness and recovery initiatives across the City. The Community Safety Element is based on the following assumptions:

- Greater public awareness of the hazards and risks that face San Francisco will result in an informed commitment by public agencies, private organizations and individuals to prepare for future disasters.
- Development and implementation of programs to increase safety and economic resilience, mitigate risk, increase preparedness and respond to emergencies are the responsibility of many different agencies. Cooperation among City and County agencies, Bay Area Communities, federal and state agencies, community-based organizations, and the private sector is essential for these programs to be effective.
- New policies and programs must be developed and funding vehicles identified that will minimize risks from natural hazards and expedite the recovery process.
- Existing hazardous structures have the greatest potential for loss of life, extended economic interruption and other serious impacts as a result of an earthquake. The City should continue to explore ways to reduce these risks.

One of the Priority Policies of the City's General Plan, with which all City actions are required to be consistent, is that the City achieves the greatest possible preparedness to protect against injury, loss of life, and economic impacts in an earthquake. The policies of the Community Safety Element are intended to direct all City actions to achieve this goal in the face of earthquakes and other natural and technological disasters; to reduce the social, cultural and economic dislocations of disasters; and to assist and encourage the rapid recovery from disaster should one occur. The Community Safety Element also sets forth the responsibilities of the many City departments who will need to implement these policies. Implementation of the Community Safety Element is carried out through a number of City plans and programs, as described below- most specifically the City's Hazard Mitigation Plan and the programs developed under ResilientSF – as well as by the agencies and entities referenced in relevant policies.

The Objectives and Policies that advance this goal are classified into four general categories. They are:

- **Mitigation.** Hazard mitigation policies and programs are intended to diminish long-term impacts to an appropriate level. Hazard mitigation activities, effectively carried out, reduce the need for response and recovery from disasters because they will reduce the amount of physical damage incurred.

- **Preparedness.** Preparedness programs educate and organize people to respond appropriately to disasters. Therefore, they anticipate the effects of a disaster and take

appropriate countermeasures in advance, such as issuing warnings, stockpiling supplies, or establishing evacuation routes.

- **Response.** Response actions are those taken during an event and its immediate aftermath. Response programs generally focus on those agencies with responsibility for providing emergency and other services to the public when a disaster occurs. The focus of response activities is saving lives and preventing injury, and reducing immediate property damage.

- **Recovery and Reconstruction.** Recovery encompasses the steps necessary to bring a community back to life – fundamentals such as housing, business resumption, lifeline restoration, and provision of day-to-day services – and to have the capacity to rebuild effectively in the post-disaster period. Reconstruction happens over the long term after a major disaster. Both recovery and reconstruction require that key decisions be made about short-term and long-term rebuilding, including the provision of housing for those displaced, resumption of services to homes and businesses, and the resumption of economic and government functions.

Communication is an important aspect of all of these steps. Knowledge about natural disasters is continually growing, and in order to deal with disasters effectively, it is critical that the public, City agencies, and decision-makers be well informed. It is also important that information about events and activities in the City be available to other government agencies and researchers. The general public needs to know how they can prepare for disaster. The City needs to facilitate contact with the community and among its various organizations and departments to be an effective responder. All stages need improved and enhanced coordination. Improved coordination among City programs, and others working to reduce the risks of disasters will result in more effective preparedness, response and recovery efforts. Coordination with outside agencies including regional, state and federal organizations will expand the City's network of support and the speed with which it responds in the case of a San Francisco disaster.

Description of Community Safety Element Update and Policy Context

The proposed Community Safety Element Update contains four objectives, with policies under each of the objectives, shown in Table 1, below. The existing objectives and policies are revised as follows: 1) objectives and policies are re-worded and some deleted to reflect the concepts of the Community Safety Element Framework[3]; 2) new policies are added based on interdepartmental input; 3) all implementation measures have been removed from the Community Safety Element and incorporated into other City plans and programs, including the Hazard Mitigation Plan and Resilient SF, and the Community Action Plan for Seismic Safety (CAPSS) implementation programs; and 4) some maps have been revised and deleted.[4] Table 1 shows the policies of the

[3] Deletions from the 1997 Community Safety Element include Objective 1 and 5, and Policies 1.1, 3.3, and 5.1. Objective 1 and 5 have been integrated into the policies of the CSE Update and are no longer relevant as standalone objectives.

[4] The following changes have been made to existing CSE maps: Map 1 (Bay Area Earthquake Faults) was revised; Maps 2 and 3 (Ground Shaking Intensity) were revised; Map 4 (Seismic Hazards Study Zones – Areas of Liquefaction Potential) and Map 5 (Areas Susceptible to Landslides) were revised and combined into a single map; and Map 6 (20-foot Tsunami Run-up) was revised.

2012 Community Safety Element Update, compared with the 1997 Community Safety Element adopted policies. New objectives and policies are denoted in bold font.

Table 1: Existing and Proposed Community Safety Element Objectives and Policies

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
OBJECTIVE 1 REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.	OBJECTIVE 2 REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY, MINIMIZE PROPERTY DAMAGE AND RESULTING SOCIAL, CULTURAL AND ECONOMIC DISLOCATIONS RESULTING FROM FUTURE DISASTERS.
POLICY 1.1 Continue to support and monitor research about the nature of seismic hazards in the Bay Area, including research on earthquake prediction, warning systems and ground movement measuring devices, and about earthquake resistant construction and the improved performance of structures.	POLICY 5.2 Support and monitor research being conducted about the nature of seismic hazards in the Bay Area, including research on earthquake prediction and warning systems, on the risk of tsunamis, and on the performance of structures.
POLICY 1.2 ***Research and maintain information about emerging hazards such as terrorism threats and communication failures.***	
POLICY 1.3 Assure that new construction meets current structural and life safety standards.	POLICY 2.1 Assure that new construction meets current structural and life safety standards.
POLICY 1.4 Use best practices to review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering regarding existing buildings.	POLICY 2.2 Review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering.
POLICY 1.5 ***Support development and amendments to buildings code requirements that meet City seismic performance goals.***	
POLICY 1.6 Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.	POLICY 2.3 Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 1.7 Consider information about geologic hazards whenever City decisions are made that will influence land use, building density, building configurations or infrastructure are made.	POLICY 2.9 Consider information about geologic hazards whenever City decisions that will influence land use, building density, building configurations or infrastructure are made.
POLICY 1.8 ***Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses.***	
POLICY 1.9 ***Mitigate and assess the risk of flooding in San Francisco by incorporating the Flood Insurance Rate Map for San Francisco and related programs from this map to mitigate against flood risks.***	
POLICY 1.10 ***Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats.***	
POLICY 1.11 ***Continue to promote green stormwater management techniques.***	
POLICY 1.12 ***Ensure that new development on Treasure Island, Yerba Buena Island and Hunters Point Shipyard are resistant to natural disasters.***	
POLICY 1.13 Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks.	POLICY 2.5 Assess the risks presented by other types of potentially hazardous structures and reduce the risks to the extent possible
POLICY 1.14 Reduce the earthquake and fire risks posed by older small wood-frame residential buildings.	POLICY 2.6 Reduce the earthquake and fire risks posed by older small wood-frame residential buildings through easily accomplished hazard mitigation measures.

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 1.15 Abate structural and non-structural hazards in City-owned structures.	POLICY 2.7 Abate structural and non-structural hazards in City-owned structures.
POLICY 1.16 Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.	POLICY 2.8 Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.
POLICY 1.17 ***Create a database of vulnerable buildings, seismic evaluations, and seismic retrofits to track progress, record inventories, and evaluate and report on retrofit data.***	
POLICY 1.18 Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.	POLICY 2.10 Identify and replace vulnerable and critical lifelines in high-risk areas.
POLICY 1.19 ***Mitigate against damage to City systems and infrastructure through awareness of threats posed by new forms of hazards such as terrorism and communication failures.***	
POLICY 1.20 ***Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach areas and special populations.***	
POLICY 1.21 ***Ensure plans are in place to support populations most at risk during breaks in lifelines.***	
POLICY 1.22 Reduce hazards from gas fired appliances and gas lines.	POLICY 2.11 Reduce hazards from gas fired appliances and gas lines.
POLICY 1.23 Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.	POLICY 2.12 Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 1.24 ***Educate public about hazardous materials procedures, including transport, storage and disposal.***	
POLICY 1.25 ***Prepare for medical emergencies and pandemics.***	
POLICY 1.26 ***Monitor emerging industries like bioscience, and ensure that state and local codes manage risks effectively.***	
OBJECTIVE 2 BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.	OBJECTIVE 3 ENSURE THE PROTECTION OF LIFE AND PROPERTY FROM DISASTERS THROUGH EFFECTIVE EMERGENCY RESPONSE. PROVIDE PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL DISASTERS AND HOW INDIVIDUALS, BUSINESSES AND COMMUNITIES CAN REDUCE THE IMPACTS OF DISASTERS
POLICY 2.1 Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."	POLICY 3.1 Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response.
POLICY 2.2 ***Encourage businesses and homeowners to evaluate their earthquake risks.***	
POLICY 2.3 Provide on-going disaster preparedness and hazard awareness training to all City employees and other responding agencies.	POLICY 3.2 Provide on-going disaster preparedness and hazard awareness training to all City employees.
POLICY 2.4 ***Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.***	

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 2.5 Maintain a comprehensive, current Emergency Response Plan, in compliance with applicable state and federal regulations, to guide the response to disasters.	POLICY 3.4 Maintain a comprehensive, current Emergency Operations Plan, in compliance with applicable state and federal regulations, to guide the response to disasters. Conduct periodic exercises of the EOP.
POLICY 2.6 ***Create a consolidated website linking all of the City's disaster-related information for the general public.***	
POLICY 2.7 Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.	POLICY 3.6 Maintain and expand the city's fire prevention and fire fighting capability with adequate personnel and training. Assure the provision of adequate water for fighting fires
POLICY 2.8 ***Ensure potable water is available in an emergency.***	
POLICY 2.9 ***Develop agreements with private facilities to ensure immediate supply needs can be met.***	
POLICY 2.10 ***Maintain the San Francisco Disaster Debris Management Plan.***	
POLICY 2.11 Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.	POLICY 3.7 Establish a system of emergency access routes for both emergency operations and evacuation.
POLICY 2.12 Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.	
POLICY 2.13 Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.	
POLICY 2.14 Support the Emergency Operations Center, and continue maintenance of alternative operations centers in the case of an emergency.	POLICY 3.5 Maintain an adequate Emergency Command Center.

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 2.15 *Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.*	
POLICY 2.16 *Plan to address security issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.*	
POLICY 2.17 *Ensure the City's plan for medical response is coordinated with its privately owned hospitals.*	
POLICY 2.18 *Ensure all Response Plans are coordinated with the Disaster Council.*	
POLICY 2.19 *Seek funding for preparedness projects.*	
POLICY 2.20 *Enhance communications with nearby jurisdictions.*	
POLICY 2.21 *Develop and maintain mutual aid agreements with local, regional and state governments as well as other relevant agencies.*	
POLICY 2.22 *Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.*	
OBJECTIVE 3: ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE *EFFECTS OF A DISASTER.*	OBJECTIVE 3 ENSURE THE PROTECTION OF LIFE AND PROPERTY FROM DISASTERS THROUGH EFFECTIVE EMERGENCY RESPONSE. PROVIDE PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL DISASTERS AND HOW INDIVIDUALS, BUSINESSES AND COMMUNITIES CAN REDUCE THE IMPACTS OF DISASTERS
POLICY 3.1 *After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan.*	

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 3.2 *Follow the National Incident Management System (NIMS) Procedures in declared emergency scenarios.*	
POLICY 3.3 *Have plans to accept, organize and utilize convergence workers.*	
POLICY 3.4 *Have vendors and contractors available to respond immediately after a disaster.*	
POLICY 3.5 *Develop strategies for cooperating with the media.*	
POLICY 3.6 *Support the ability to shelter-in-place standards for residents.*	
POLICY 3.7 *Develop a system to convey personalized information during and immediately after a disaster.*	
POLICY 3.8 *Establish centers to facilitate permits for repairs.*	
POLICY 3.9 *Work collaboratively with nonprofit partners to assist vulnerable populations during and immediately after a disaster and to ensure resumption of social services directly after a disaster.*	
POLICY 3.10 *Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster.*	
POLICY 3.11 *Ensure historic resources are protected in the aftermath of a disaster.*	
Policy 3.12 *Address hazardous material and other spills by requiring appropriate cleanup by property owners per local, state, and federal environmental laws.*	

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
OBJECTIVE 4 ASSURE THE SOUND, EQUITABLE AND EXPEDIENT RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.	OBJECTIVE 4 ASSURE THE SOUND, EQUITABLE AND RAPID RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.
POLICY 4.1 Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate rebuilding activity.	POLICY 4.4 Before an emergency occurs, establish an interdepartmental group to develop a Recovery Plan to guide long-term recovery, manage reconstruction activities, and provide coordination among recovery activities.
POLICY 4.2 ***As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance, to facilitate the repair and reconstruction of buildings.***	
POLICY 4.3 ***As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employee's skills can be used effectively towards recovery and reconstruction efforts.***	
POLICY 4.4 ***Update the advance recovery framework on a regular basis.***	
POLICY 4.5 ***Develop and maintain public support for the advance recovery framework to ensure its eventual implementation.***	
POLICY 4.6 ***Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.***	
POLICY 4.7 ***Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies.***	

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 4.8 ***Where necessary, use public authority to expedite repair, reconstruction and rebuilding.***	
POLICY 4.9 ***Engage the community in the reconstruction planning process.***	
Policy 4.10 ***View recovery as a partnership with neighborhoods.***	
POLICY 4.11 ***Promote partnerships with non-governmental agencies, including public/private partnerships, to ensure support is ready to step in after a disaster.***	
POLICY 4.12 Rebuild after a major disaster consistent with established General Plan objectives and policies.	POLICY 4.1 Rebuild after a major disaster in accordance with established General Plan objectives and policies and other relevant policies and regulations.
POLICY 4.13 ***Support existing policies to create and maintain affordable housing choices.***	
POLICY 4.14 ***Utilize emergency exemptions for rebuild projects with limited or no environmental impacts.***	
POLICY 4.15 ***Utilize green building practices in rebuilding.***	
POLICY 4.16 ***Ensure design character and quality is paramount in consideration of all rebuilding projects.***	
POLICY 4.17 Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible	POLICY 4.3 Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible.
POLICY 4.18 Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality.	POLICY 4.2 Repair and reconstruct damaged neighborhoods so that displaced residents are able to return to the communities where they lived.
POLICY 4.19 ***Consider homelessness in the wake of disaster.***	
POLICY 4.20 ***Ensure sufficient workforce housing during reconstruction.***	

Proposed 2012 Community Safety Element Objectives and Policies	Related 1997 Community Safety Element Objectives and Policies
POLICY 4.21 ***Have an economic recovery plan in place before the disaster strikes.***	
POLICY 4.22 ***Explore expansion of the City's disaster relief programs.***	
POLICY 4.23 ***Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures***	
POLICY 4.25 ***Foster access to capital for individuals, families and businesses.***	

Approach to Analysis

The subject of this Initial Study is an analysis of new objectives and policies comprising an update (amendment) to the Community Safety Element of San Francisco's General Plan. This Initial Study approaches the analysis of the proposed Community Safety Element policies, goals and objectives in a comprehensive, programmatic manner, and focuses the analysis on a series of potential actions (e.g., adoption of high-level policy) that may be characterized as one large project with elements related to each other either geographically or in the context of future legislation (such as the issuance of rules, regulations or plans).

Environmental review of an amendment to a General Plan or General Plan element need only analyze changes from a previously adopted plan or element. Thus, this Initial Study addresses the changes of the 2012 Community Safety Element Update from the previous 1997 Community Safety Element, as presented in Table 1. As a policy document, the CSE Update does not include specific projects, and as such, no specific development projects are analyzed in this Initial Study.

B. ENVIRONMENTAL SETTING

Location

San Francisco is a consolidated city and county. As illustrated in Figure 1, the City and County of San Francisco (hereafter "the City") is located on the tip of the San Francisco Peninsula with the Golden Gate Strait to the north, San Francisco Bay to the east, San Mateo County to the south, and the Pacific Ocean to the west. The City is one of nine counties adjacent to the San Francisco and San Pablo Bays. Daly City and the City of Brisbane abut San Francisco to the south. The City comprises a land area of approximately 49 square miles.

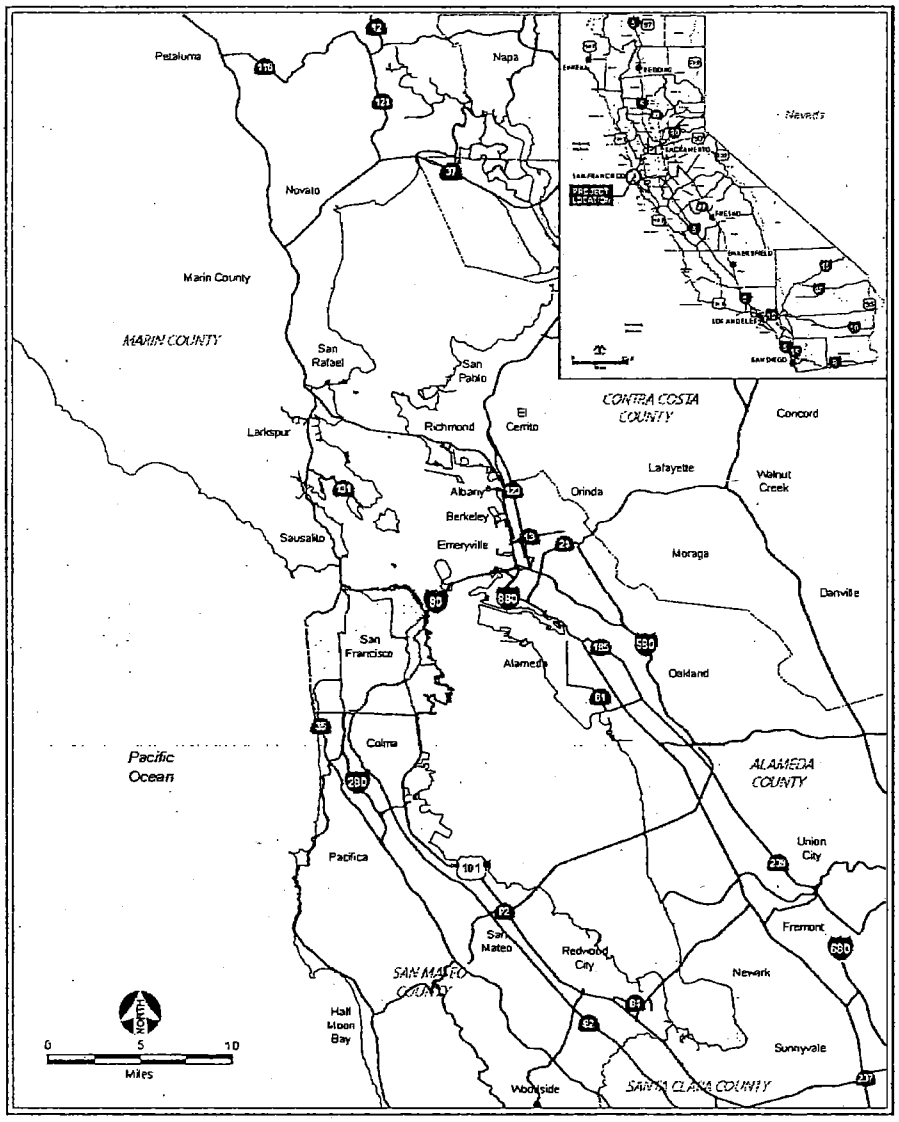


Figure 1: Project Location

Natural Hazards in San Francisco

The greatest risks to life and property in San Francisco result directly from the ground shaking and ground failure associated with large earthquakes. Many of the other hazards San Francisco faces, such as urban fires, transportation disruption, communication or technical failures, and ground failure are often associated with an earthquake. Other, less common, natural hazards include flooding due to a tsunami, seiche or reservoir failure, which may occur as a result of an earthquake. Another risk category consists of disasters due to human activity, such as environmental disasters such from the release of hazardous materials, including oil spills, socially motivated catastrophes from civil disturbances and terrorism, and large-scale road accidents, and incidents on commercial aircraft or other large scale mechanical failure.

This section discusses the City's earthquake vulnerability and the risks associated with earthquakes: ground shaking and ground failures such as settlement, liquefaction and landslides; inundation hazards such as tsunami and flooding. Human-caused disasters, such as terrorist activity, transportation disruptions or collisions, building collapses, and hazardous material spills or explosions are discussed briefly. The mitigation, preparedness and response policies of the CSE Update apply to these kinds of disasters as well.

The City's Emergency Response Plan provides more detail on disaster threats faced by the City. The recently adopted San Francisco Hazard Mitigation Plan will provide further analyses of these hazards, and includes specific hazard mitigation plans and programs to address them.

Earthquakes

Earthquakes have always occurred in the San Francisco Bay Area and will continue to occur in the future. There is a historical record of damaging earthquakes dating as far back as 1808 and trenching and other geological studies have identified earthquake events over many hundreds of years. Although few magnitude 6 or greater earthquakes occurred between 1906 and the late 1970s, many scientists believe that higher frequency of earthquakes since 1979 may represent a return to the higher rates of activity recorded before 1906.

The great 1906 earthquake and the fire that it caused resulted in about 3,000 deaths. The worst building damage occurred on artificially filled areas created on former marshes, streams and the Bay. Wood-frame buildings in the South of Market area and brick buildings downtown were especially heavily damaged. Large ground displacements in the filled ground along the Bay damaged utilities. Damage to the gas generating and distribution system resulted in explosions and exacerbated the spread of fire. Breaks in the underground water pipes resulted in a loss of fire fighting capability. More than 28,000 buildings within a four square mile area were destroyed over a period of three days. About 100,000 people were left homeless. Refugee camps in parks and other open spaces continued for many months. A 1908 estimate of private property damage in the fire zone was $1 billion. Some of the municipal bonds that financed the rebuilding of public facilities were not paid off until the 1980s.

The October 17, 1989 Loma Prieta earthquake occurred on the San Andreas fault about 60 miles (100 km) southeast of San Francisco. Sixty-two people were killed, including eleven in San Francisco. Forty-two of these fatalities occurred because of failures of bridges and freeways. Most of the remaining deaths resulted from the collapse of buildings in Santa Cruz and San Francisco.

The total damage to private and public facilities throughout the region is estimated at more than $6 billion. Again, the damage was not evenly distributed through the City. Much of the severe damage occurred in the same areas that suffered in 1906 and those areas built on unengineered artificial fill in the Marina and South of Market districts. Many buildings severely damaged by the earthquake had structural weaknesses known to make them vulnerable to earthquake damage. They included "soft story" wood-framed buildings (with large openings and inadequate strength at the ground story) and unreinforced masonry buildings. Fire ignited in the Marina District did not spread beyond the immediate region, owing to the efforts of San Francisco firefighters and benign wind conditions. About 130 buildings in San Francisco, containing more than 1,000 housing units, were destroyed or irreparably damaged. Many more could not be occupied for an extended length of time while repairs were carried out. Additional residents were displaced temporarily by a lack of utilities. The Red Cross provided overnight shelter for about 2,000 people on the night of the earthquake.

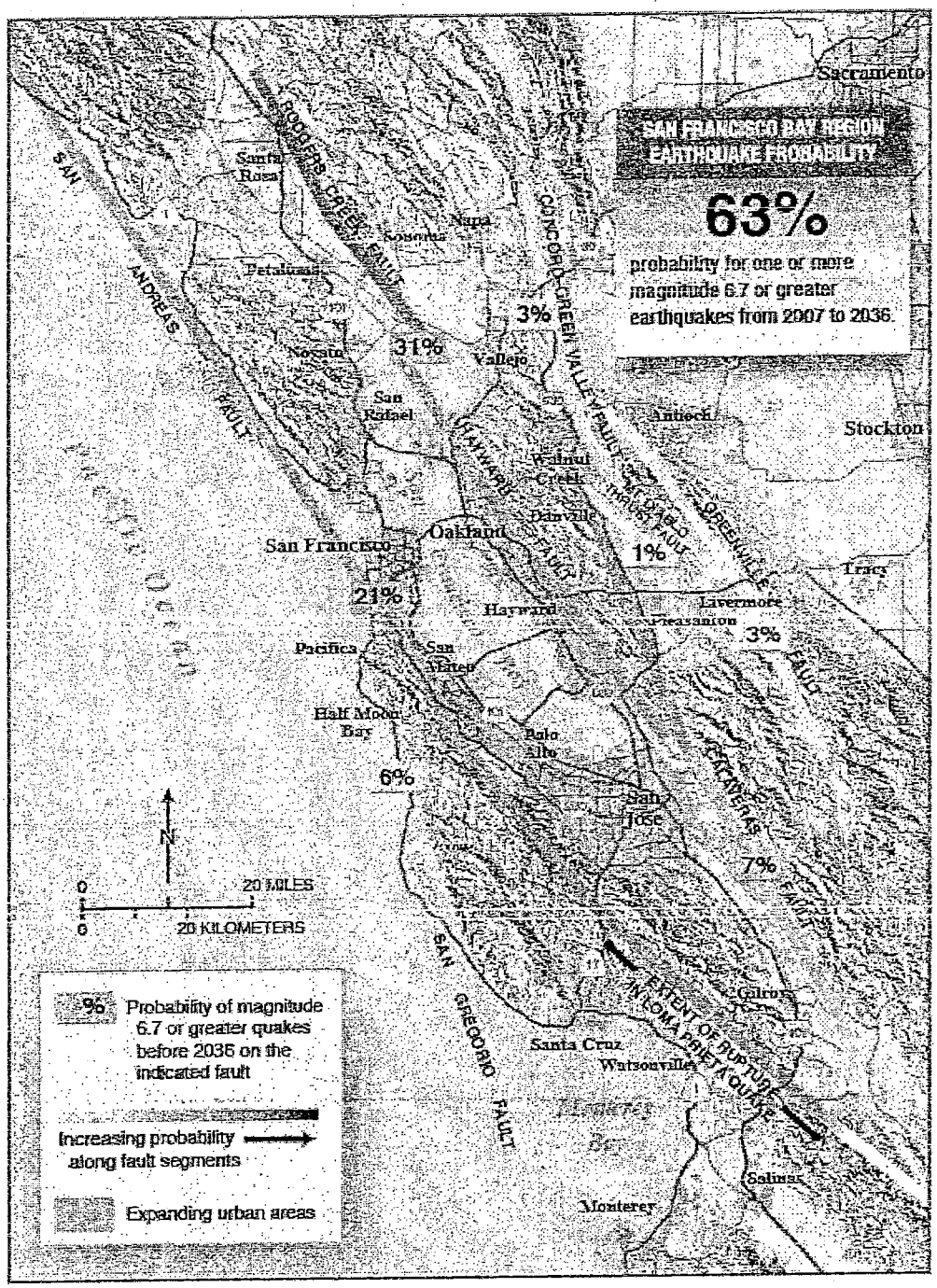
After the October 1989 Loma Prieta Earthquake, the National Earthquake Prediction Evaluation Council formed a Working Group of earthquake scientists to assess the probabilities of large earthquakes in the Bay Area. The Working Group's most recent assessment in 2008 concluded that there is a 67% likelihood of one or more major earthquakes (magnitude 6.7 or greater and capable of resulting in substantial damage) occurring in the Bay Area in the next 30 years (http://earthquake.usgs.gov/regional/nca/ucerf/). This means that a major quake is twice as likely to occur as it is not to occur. Most of our existing structures and infrastructure, and most of the new buildings and public works now contemplated, will probably be in place when the expected earthquake happens.

San Francisco Geology and Seismicity

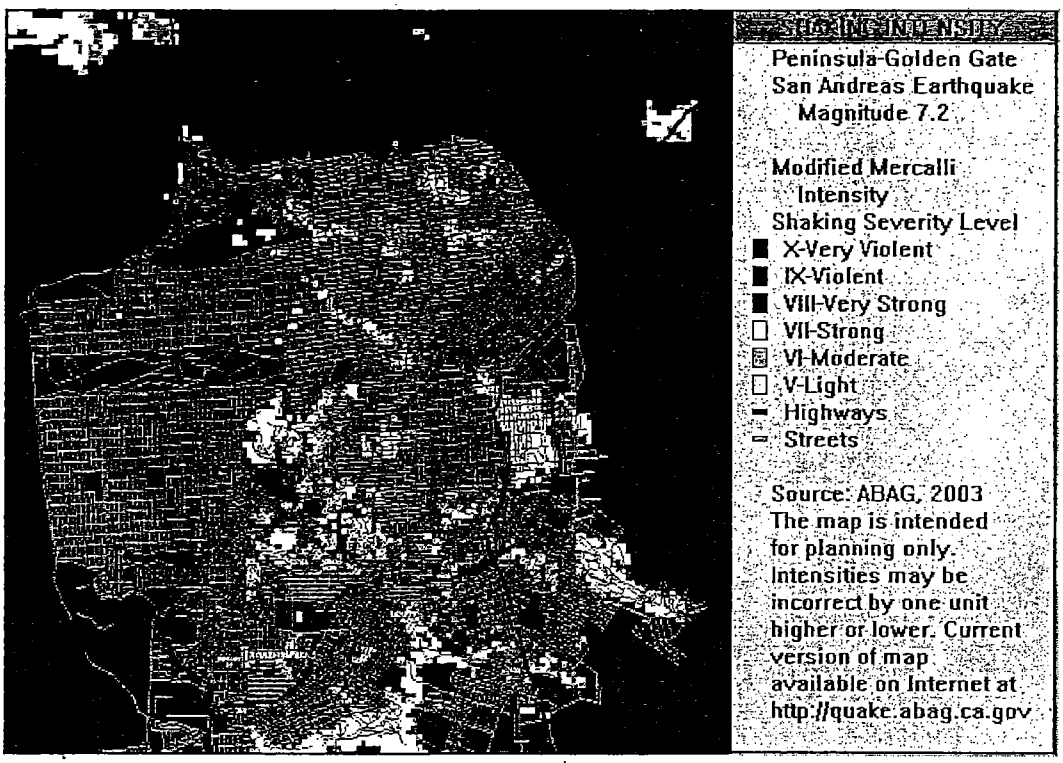
The San Andreas fault system is a complex network of faults that extends throughout the Bay area (see Map 1 on page 18). While no known active faults exist in San Francisco, major earthquakes occurring on the faults surrounding the City have resulted in substantial damage within the City. Similar damaging earthquakes in the future are inevitable.

Some of these faults are found beneath or close to the most heavily populated parts of the Bay Area. As a result, earthquakes on these faults could be much more damaging than the Loma Prieta earthquake, even if the magnitude is smaller. The Northridge California earthquake of 1994 and the Kobe Japan earthquake of 1995 illustrate how destructive earthquakes very close to urban areas can be. The Northridge earthquake, with a magnitude of 6.8 resulted in about 60 deaths and severe or total damage to about 3,000 buildings. The Kobe earthquake had a magnitude of 6.8 and resulted in more than 5,000 deaths and the loss of about 60,000 buildings, including those destroyed by fire. The location and movement of earthquake faults do not explain all of the earthquake risk. Even in locations that are relatively far from faults, soils can intensify ground shaking, or the ground may settle or slide. The parts of San Francisco that experienced the greatest damage in 1989 were not those closest to Loma Prieta, but those with soils that magnified ground shaking or liquefied. These were the same areas that experienced damage in 1906, though the epicenter of the 1906 earthquake was in a different direction.

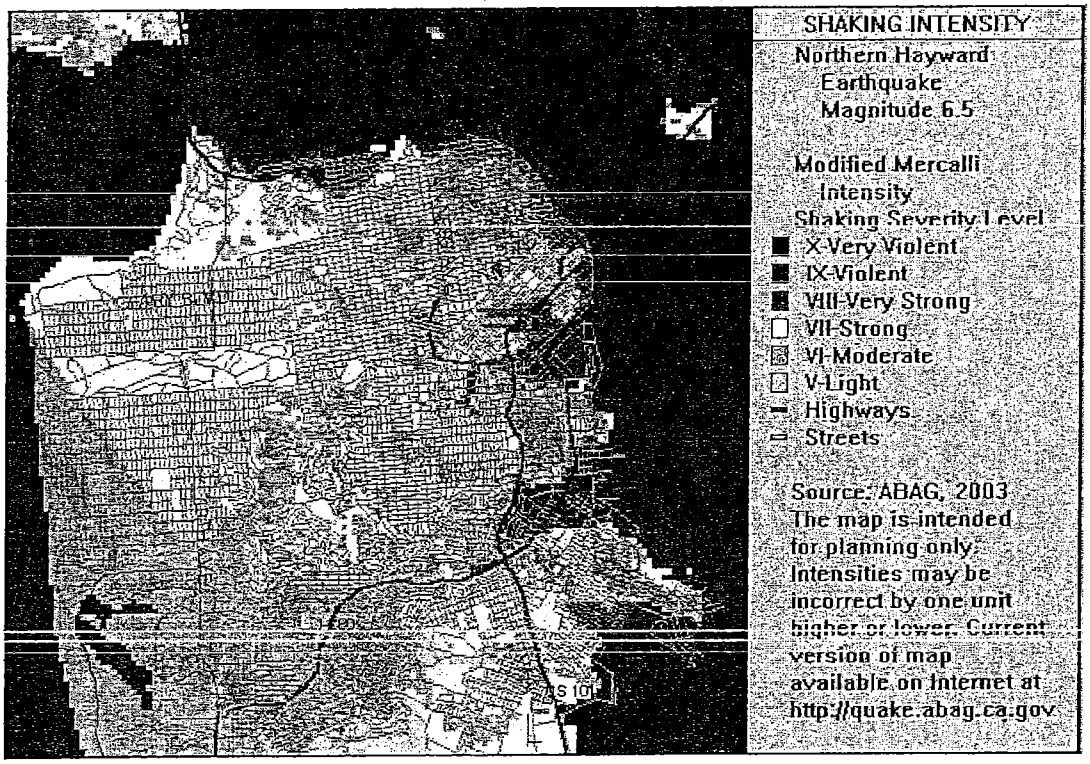
The hills along the central spine of the San Francisco peninsula are composed of rock and soils that are less likely to magnify ground shaking, although they are sometimes vulnerable to landsliding during an earthquake. The soils most vulnerable during an earthquake are in low-



Map 1 – Bay Area Earthquake Faults USGS 2007



Map 2 - Ground Shaking Intensity
Magnitude 7.2 Earthquake on the San Andreas Fault



Map 3 – Ground Shaking Intensity
Magnitude 6.5 Earthquake on the Northern Hayward Fault

Seismic Hazard Zones
San Francisco, 2012

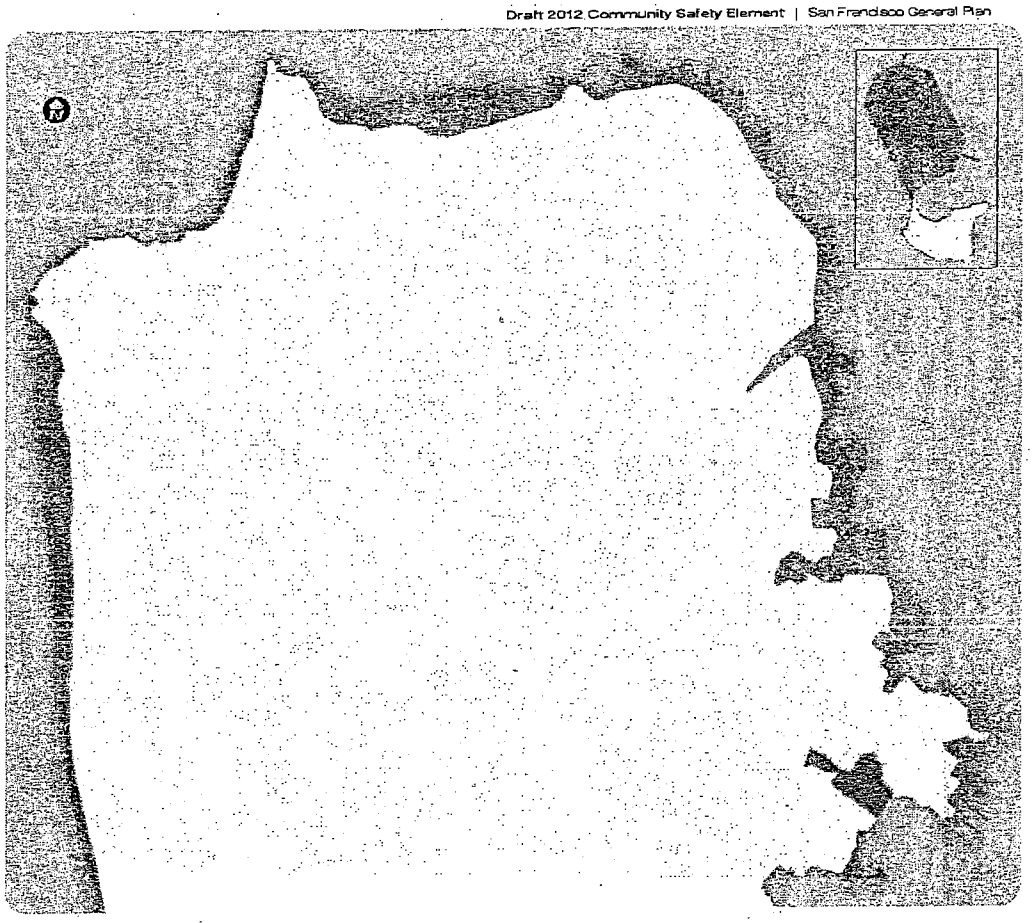
MAP 04

Liquifaction Zone

Landslide Zone

SAN FRANCISCO
PLANNING DEPARTMENT

Map 4 – Seismic Hazard Zones San Francisco 2012



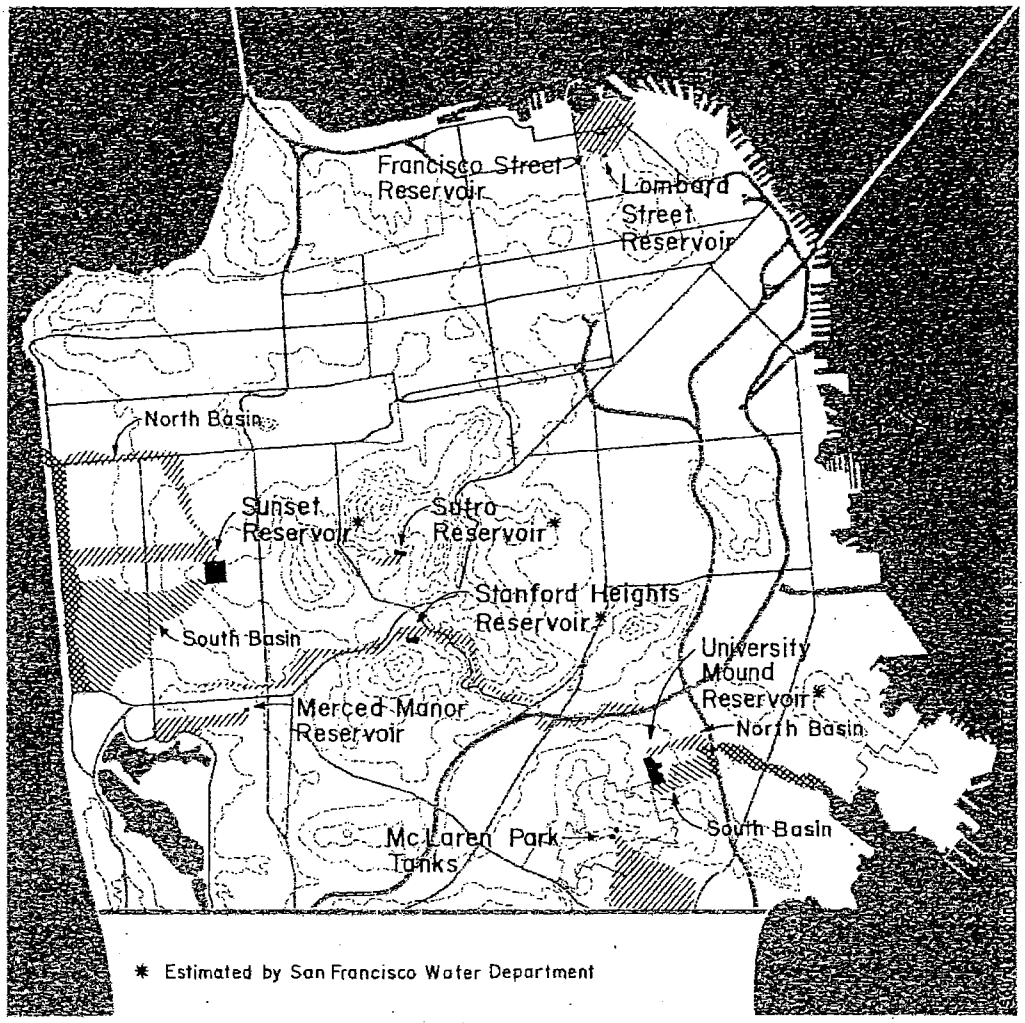
Tsunami Hazard Zones
San Francisco, 2012

MAP 05

Tsunami Hazard Zone

SAN FRANCISCO
PLANNING DEPARTMENT

Map 5 – Tsunami Hazard Zones San Francisco 2012



Map 6 – Potential Inundation Areas Due to Reservoir Failure

lying and filled land along the Bay, in low-lying valleys and old creek beds, and to some extent, along the ocean. Those soils, as well as those at steep hillsides, are at the most serious risk during earthquakes from ground shaking and ground failure such as earthquake liquefaction and landslides.

Ground Shaking

Most earthquake damage comes from ground shaking. Ground shaking occurs in all earthquakes. All of the Bay area and much of California are subject to some level of ground shaking hazard. The impacts of ground shaking will be quite widespread. The severity of ground shaking varies considerably over the impacted region depending on the size of the earthquake, the distance from the epicenter of the earthquake, the nature of the soil at the site, and the nature of the geologic material between the site and the fault. It is likely that the intensities of ground shaking will vary considerably throughout the City during any given earthquake, and that the pattern of ground shaking will be fairly consistent, reflecting the underlying soils. In general, sites with stronger soils will experience shaking of less intensity than those in low-lying areas and along the Bay, with Bay mud or other weaker soils. Some sites, particularly those with poor soils, will experience strong ground shaking in most earthquakes. Maps 2 and 3 on pages 19 and 20 depict the anticipated shaking intensity in the City for an earthquake magnitude of 7.2 and 6.5 in the San Andreas and Northern Hayward faults, respectively.

Ground Failure, Liquefaction, and Landslides

"Ground failure" means that the soil is weakened so that it no longer supports its own weight or the weight of structures. Ground failure can happen without earthquakes. For example, landsliding is a natural geological process. It is also likely to occur suddenly and catastrophically during earthquakes. The major types of ground failure associated with earthquakes are liquefaction, landslides, and lateral spreading.

Liquefaction is the transformation of a confined layer of sandy water-saturated material into a liquid-like state because of earthquake shaking. When soil liquefies during an earthquake, structures no longer supported by the soil can tilt, settle or break apart. Underground utilities can be substantially damaged. Localities most susceptible to liquefaction are underlain by loose, water-saturated, granular sediment within 40 feet of ground surface, a condition which is widespread in San Francisco. This susceptibility is exacerbated by the high risk of ground shaking from nearby active faults. The combination of these factors constitutes a significant seismic hazard in San Francisco.

A landslide is a movement of a mass of soil down a steep slope when the soil loses strength and can no longer support the weight of overlying soil or rocks. Landslides vary in size and rate of movement. They can occur slowly over time or suddenly. Areas susceptible to landslides are those where masses of soils are weakly supported because of natural erosion, changes in ground water or surface water patterns, or human activities such as undercutting. Landslides can be triggered by heavy rains, as occurred during the high wind and rainstorms of the winter of 1995-1996 and in early 1997. Earthquakes will trigger landslides in susceptible areas, as occurred in the Santa Cruz Mountains during the 1989 Loma Prieta earthquake. A large earthquake in San

Francisco may cause movement of active slides and could trigger new slides similar to those that have already occurred under normal conditions.

The California Geological Survey (CGS) has prepared maps of areas of liquefaction potential, as required by the Seismic Hazard Mapping Act of 1990. The map and evaluation report summarizing seismic hazard zone findings for potentially liquefiable soils show that liquefaction zones exist south of Market Street, in the Mission District, and at Hunters Point; in areas of artificial fill along the waterfront, especially the Marina District and at Treasure Island; and along the beaches facing the ocean. Liquefiable soils are also generally found in filled areas along the Bay front and former Bay inlets, and in sandy low-lying areas along the ocean front and around Lake Merced. The analysis also demonstrates the locations of steep slopes and cliffs that are most susceptible to landsliding. These earthquake-induced landslide hazard zones make up about 3 percent of the land in San Francisco.

The Seismic Hazard Zones Map for San Francisco (California Geological Survey, 2000), shown as Map 4 on page 21, illustrates the areas with liquefaction potential and those subject to earthquake induced landslides. This map is be used by the City when adopting land use plans and in its permitting processes. Development proposals within the Seismic Hazard Zones shown on the official maps are required to include a geotechnical investigation and design and construction features that will mitigate the liquefaction hazard. The City's Department of Building Inspection uses these guidelines during independent building review of proposed projects.

Inundation Hazards

Tsunami

Tsunamis are large waves in the ocean generated by earthquakes, coastal or submarine landslides, or volcanoes. Damaging tsunamis are not common on the California coast. Most California tsunamis are associated with distant earthquakes (most likely those in Alaska or South America, and recently in Japan and Indonesia), not with local earthquakes. Devastating tsunamis have not occurred in historic times in the Bay area. Because of the lack of reliable information about the kind of tsunami runups that have occurred in the prehistoric past, there is considerable uncertainty over the extent of tsunami runup that could occur. There is ongoing research into the potential tsunami run-up in California. Map 5 (Tsunami Hazard Zones) on page 22 shows areas where tsunamis are thought to be possible.

Flooding

The National Flood Insurance Program (NFIP), which designates flood-prone areas, has recently completed mapping communities along the San Francisco Bay, including San Francisco. Areas currently designated as prone to surface flooding in San Francisco on the new floodplain maps are in portions of Mission Bay, Treasure Island, Hunters Point Shipyard and Candlestick Point, as well a significant portions of the Port. Designation as a federal flood hazard zones could necessitate the adoption of a Flood Plan Management Ordinance, which would restrict uses that could be dangerous due to water or erosion, require that uses be protected against flood damage when constructed, and require floodplain management by development in floodplain areas.

Reservoir Failure

Dams and reservoirs which hold large volumes of water represent a potential hazard due to failure caused by ground shaking. The San Francisco Public Utilities Commission (SFPUC) owns above ground reservoirs and tanks within San Francisco. Their inundation areas are shown in Map 6 on page 23. The SFPUC monitors its facilities and submits periodic reports to the California Department of Water Resources, Division of Safety of Dams (DOSD), which regulates large dams.

Sea Level Rise

Using multiple emissions scenarios, best available projections for California and the Bay Area currently assume 12-18 inches of sea level rise by 2050 and 21-55 inches of sea level rise by 2100, given current carbon emissions trends (see, for example, BCDC's sea level rise maps at *http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml*). These projections are likely to change over time as climate science progresses. Perhaps the most obvious and widespread consequence of sea level rise is inundation and flooding of land. Sea level rise will not only cause permanent land inundation, it will increase and expand the 100-year floodplain. Thus, the number of residents at risk would increase during storm events. Land composed of bayfront fill is at risk for inundation because of low elevation and subsidence over time due to compaction from buildings and soil desiccation. Additionally, sea walls located along the Embarcadero and along the Great Highway may be at risk for overtopping and inundation.

Impacts of Future Earthquakes

The most immediate impacts from earthquakes are deaths and serious injuries, the extent of which depends on the number of people in the area at the time, and the types of structures that they occupy. Risk is related to more than distance from the earthquake; nevertheless, about 1.26 million people live within 10 km of the likely epicenter of a magnitude 7 earthquake on the Northern segment of the Hayward fault. This is about 10 times the number of people at a similar distance from the epicenter of the Loma Prieta earthquake.

Since the 1906 earthquake, San Francisco has made strides in ways to reduce impacts of earthquakes and other disasters. Improvements in building and fire codes, modern construction techniques, and retrofits reduced vulnerability. However, the City's population has more than doubled, and the value of its buildings has increased significantly; these increases in population and appreciated building values result in heightened risk.

Most deaths and injuries will result from the failure of buildings and other structures. The number of casualties will be influenced by the time of day of the earthquake. At night more people are in relatively safe small wood-frame structures. During the day more people could be in more hazardous and higher occupancy buildings, on vulnerable bridges and freeways, or on streets subject to falling debris. In recent large earthquakes, buildings designed and constructed with current engineering techniques generally performed well. This means that they did not collapse or pose an unreasonable threat to the lives of occupants, although they may have suffered structural damage that is difficult, expensive or even impossible to repair.

The 1974 Community Safety Element specifically examined unreinforced masonry buildings (UMBs) because of their record of poor performance in earthquakes. Eight deaths during the Loma Prieta earthquake resulted from UMBs. In the Loma Prieta earthquake about 13 percent of all San Francisco UMBs were damaged to the extent that occupancy was limited, while about 2 percent of other San Francisco buildings were damaged. To date, most of the City's UMBs have been upgraded via the 1992 UMB Ordinance. However, other hazardous building types remain. Most of San Francisco's private, noncommercial buildings are wood, and are highly susceptible to post-earthquake fire conflagration. Concrete frame structures with unreinforced masonry infill panels are also a concern, as they are prone to collapse during earthquakes. Non-ductile concrete structures often fail in large earthquakes. "Soft-story" buildings, which are wood-frame buildings with open fronts or other extensive wall openings are also at high risk for partial or total collapse.

A major earthquake will result in substantial damage to utility systems. It is likely that fires will break out, larger and in greater number than can be controlled by available professional fire fighters. There may be releases of hazardous materials.

In addition to these physical impacts, there will be social and economic impacts. Lost housing will result in the need for both temporary, short-term shelter and for permanent housing to replace that which is completely destroyed. People with limited English language facility or limited mobility may be at increased risk. Many businesses will be seriously disrupted. Valuable historic buildings will be lost.

The Earthquake Response Plan Enhancement, a part of the Emergency Response Plan contains an analysis of the potential impact of several possible earthquake scenarios on San Francisco. The mid-range scenario viewed by the analysis looked at magnitude 7.1 to 7.2 earthquakes on the Peninsula-Golden Gate segment of the San Andreas Fault. The analysis showed that under this scenario, injuries requiring basic or significant medical aid could range from 5,300 to 8,700, and life threatening casualties or deaths could encompass anywhere from 350 to 650 depending on the time of day and day of the week. The greatest numbers of casualties are likely to occur during the daytime, when the commuting population nearly doubles the total population, and in areas where the working population is greatest. In terms of building damage, as much as 25 percent of the City's private residential buildings could be effectively destroyed under a mid-range scenario quake, from either the earthquake itself or from post-earthquake fires; and up to 23 percent of the City's stock of commercial and industrial buildings could be similarly destroyed by earthquake or related fires. In terms of social impacts and displacement, nearly 92,000 households, about 28 percent of the total, will require new housing, and over 56,000 people, 7 percent of San Francisco's total population, would need short-term shelter, with need greatest among the elderly and disabled populations.

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	Applicable	Not Applicable
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.	☐	☒
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.	☐	☒
Discuss any approvals and/or permits from City departments other than the Planning Department or the Department of Building Inspection, or from Regional, State, or Federal Agencies.	☒	☐

Planning Code and Zoning

The San Francisco Planning Code ("Code"), which incorporates by reference the City's Zoning Maps, governs permitted uses, densities, and the configuration of buildings within San Francisco. Implementation of the Community Safety Element Update would require General Plan text amendments, though no variances, special authorizations, or changes to the Planning Code or Zoning Maps would be necessary.

Plans and Policies

The Community Safety Element, and its related components described above, contains broader policies to reduce impacts, occurring over a longer time frame, which will need to be carried out by the Planning Commission and other City agencies. The City also maintains several policy documents and response plans that provide more immediate direction to specific agencies in the case of disaster. These include:

CCSF Emergency Response Plan

The City's Emergency Response Plan (ERP) is maintained and updated by the Department of Emergency Management. The ERP implements many of the emergency response policies of this Community Safety Element. The ERP provides for a coordinated response to disaster by describing specific responses to be undertaken by the emergency response agencies, and other supporting City departments. The ERP is divided into three parts. Part 1 provides an overview of the emergency management system at the policy and operations levels, and is intended to educate the City's agencies about emergency operations in San Francisco. Part 2 (under development at the time of drafting) consists of detailed and restricted information that will be used by Emergency Command Center personnel in response actions and is intended for internal and authorized emergency management staff. Part 3 (under development at the time of drafting) is a set of functional and hazard-specific annexes that provide additional detailed response, resource and recovery information on specific areas of response, such as Care and Shelter, Evacuation and Volunteer Management. Examples of hazard-specific annexes are Earthquake, Oil Spill, and National Security Emergency.

CCSF Hazard Mitigation Plan

Another related plan is the Hazard Mitigation Plan, required by federal law as a condition of receiving hazard mitigation grants after a declared disaster. By law, a Hazard Mitigation Plan must describe the type, location, and extent of all natural hazards that can affect the jurisdiction;

describe the jurisdiction's vulnerability to these hazards; include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses; and, contain a plan maintenance process. The Hazard Mitigation Plan serves as one of the Implementation Programs of the Community Safety Element, and contains programs that implement its policies. The Board of Supervisors regularly adopts updates to the San Francisco Hazard Mitigation Plan.

State of California Seismic Hazards Mapping Act

In 1990, the California Legislature enacted the Seismic Hazards Mapping Act (SHMA). As a result, the Department of Conservation, California Geological Survey (CGS) (formerly known as the California Division of Mines and Geology) published a report entitled "Seismic Hazard Zone Report for the City and County of San Francisco, California" in 2000 and the Seismic Hazard Zones map for the City and County of San Francisco in 2001. The Seismic Hazard Zones (SHZ) map is included in this Element, and shows the areas with potential liquefaction and earthquake-induced landslides. The City must take the information contained in the maps into account when preparing the Community Safety Element, or when adopting or revising land use ordinances. When development projects are proposed within the SHZs, the project sponsor is required to conduct a site investigation and prepare a seismic hazard report assessing the nature and severity of the hazard, and suggesting appropriate geotechnical measures and structural design features. When approving any project in a SHZ, the City will use the information and recommendations included in the report to achieve a reasonable protection of public safety.

Citywide Earthquake Response Plan

The Citywide Earthquake Response Plan is designed to support the Emergency Response Plan (ERP), by providing considerations for a response to a major earthquake in the Bay Area that has a significant effect on San Francisco. While the ERP focuses on preparedness and mitigation, this Response Plan is primarily focused on response and short-term recovery operations. The Response Plan provides direct response strategies for all of the City's agencies in various functions that must be performed in the wake of a major earthquake. Also, for a comprehensive analysis of the potential impact of a range of earthquake magnitudes on the City, and their cumulative effects on our population and built environment, see Appendix A: Hazard Analysis of the Catastrophic Earthquake Response Plan.

Regional Emergency Coordination Plan

The San Francisco Office of Emergency Services is the lead agency to develop a Regional Emergency Coordination Plan (RECP), which is focused on the responsibilities and procedures between California's Emergency Management Agency (CalEMA) and the counties. The plan is designed to enhance coordination in governance, fire response, law enforcement, and industry across municipalities in the region; and will facilitate the flow of mutual aid. The RECP is intended to reflect existing plans and interagency agreements, and to address any gaps or inconsistencies between the existing plans. The RECP entails a Baseline Plan and nine subsidiary elements, including the Transportation Coordination and Recovery Plan (TCRP).

San Francisco All-Hazards Strategic Plan

The San Francisco All-Hazards Strategic Plan contains a five-year vision and strategy for the City's disaster management program and is intended to enhance the City's ability to deter, prevent, respond to, and recover from acts of terrorism and natural and human-caused disasters. The Strategic Plan is designed to serve as a long-term guide that is able to direct both short- and

long-term planning and preparedness efforts of City and non-governmental agencies to accomplish a single emergency management and homeland security vision and mission. This plan uses the Department of Homeland Security Target Capabilities List to identify a desired end state of the City's emergency management and homeland security capabilities, and provides objectives and performance metrics to twenty strategic goals for enhancing the City's resilience identified by senior leadership and major stakeholders. The Strategic Plan is designed to assist citywide senior leadership in directing programmatic efforts, accomplishing results, ensuring accountability, and properly allocating limited resources through the duration of the plan.

Other Citywide Plans and Programs and Studies

The City has developed several local programs to address hazard mitigation, reduce losses, and deal with post-disaster reconstruction issues. The programs outlined below are not an exhaustive list, but rather a list that meets the current needs at the time the Element was adopted. Additional programs may be developed.

Community Action Plan for Seismic Safety

The Community Action Plan for Seismic Safety (CAPSS) is an ongoing program of studies contracted with the Applied Technology Council (ATC) to understand the seismic vulnerability of San Francisco's privately owned buildings. The CAPSS program is based on five objectives: (1) that residents will be able to stay in their own homes following a disaster; (2) that residents will quickly have access to important privately-run community services; (3) that no building will collapse catastrophically; (4) that businesses and the economy will quickly return to functionality; and (5) that the City's sense of place will be preserved. These objectives are supported by seventeen recommendations. The CAPSS project was divided into three phases. The first phase involved preliminary evaluations of seismic risks and public meetings to gain input on ways to reduce that risk. The second phase of the CAPSS study includes several components. One is a vulnerability assessment identifying the City's most at-risk private buildings, which led to the development of a section on earthquake safety for "soft-story" buildings. Another component formulates requirements for the evaluation of, and subsequent repair or demolition of, buildings that are significantly damaged by earthquakes. The third phase is an implementation plan to carry out the seventeen recommendations laid out by the program.

Neighborhood Empowerment Network

The Neighborhood Empowerment Network (NEN), a partnership of City agencies, local nonprofits and committed community leaders intended to provide local community groups with information on the resources and programs that can help achieve neighborhood goals, with a particular focus on becoming better prepared for natural disasters (*www.empowersf.org*).

Lifelines Council

In 2009, the City and County of San Francisco convened a Lifelines Council under the Citywide Post-Disaster Resilience and Recovery Initiative with a purpose and scope focused on post-disaster reconstruction and recovery (http://sfgsa.org/lifelinescouncil). The Lifelines Council seeks to:

- Develop and improve collaboration in the City and across the region.
- Understand inter-system dependencies to enhance planning, restoration and reconstruction.
- Share information about recovery plans, projects and priorities.

- Establish coordination processes for lifeline restoration and recovery following a major disaster event.

Membership consists of executive officers and senior-level operational deputies of City and County of San Francisco agencies, and other local and regional providers of transportation, water, power, communications, and other essential services.

ResilientSF

ResilientSF advances San Francisco's overall resilience by providing a framework, and road map, that coordinates plans, programs, resources and relationships that increase the capacity of individuals, organizations and communities to collectively solve problems and capture opportunities. The program acts as a comprehensive planning platform, residing in the Department of Emergency Management, which tracks and coordinates plans and programs cross-sector to ensure the City's overall ability to both respond rapidly to a disaster as well as achieve an accelerated recovery. ResilientSF accomplishes its goals by leveraging existing capacity programs, such as the SF Lifelines Council, CAPSS, and NEN, as well as developing a suite of initiatives to advance the overarching mission. ResilientSF incorporates the work of the Citywide Post-Disaster Resilience and Recovery Initiative Program, initiated in 2009.

72hours.org

72hours.org is a public service campaign providing information to residents on how to prepare for emergencies such as earthquakes, fires, severe storms, power outages and acts of terrorism. The program includes a series of public service announcements and an emergency preparedness website developed and maintained by the Department of Emergency Management. The website offers step-by-step instructions on how to make a family emergency plan, build a disaster kit, and get training before a disaster occurs.

Building Occupancy Resumption Program

The usual building inspection and posting program, instituted after a damaging earthquake, is organized to allow volunteer inspectors to post buildings that need to be reviewed by qualified structural engineers before they can be reoccupied. The Building Occupancy Resumption Program (BORP), coordinated by the Department of Building Inspection, is an emergency inspection program designed to facilitate rapid decisions regarding reoccupancy by eliminating the step by volunteer inspectors. The program provides pre-certification for private emergency inspection by qualified Structural Engineers who are retained by the building owner to evaluate and post buildings on behalf of the City. Building owners must request participation in this program prior to an earthquake, or other disaster, sponsor a pre-earthquake evaluation of their building, and meet the program requirements for setting specific criteria for posting. This program allows knowledgeable, pre-approved engineers to inspect and definitively post a building immediately without the need for another level of inspection. The City does not charge a fee for participation in this program.

Neighborhood Emergency Response Team

The Neighborhood Emergency Response Team (NERT) Training Program was developed by the San Francisco Fire Department after the residential response to the 1989 earthquake. The program provides training in disaster and emergency response to neighborhood groups and residents, and prepares them to be members of an emergency response team. The 20-hour training program is

taught by professional firefighters. There is no cost for neighborhood training under this program.

Coordinated Assistance Network

San Francisco's Coordinated Assistance Network (SF CAN) brings together the American Red Cross Bay Area Chapter, the Catholic Charities CYO, the Golden State Division of the Salvation Army, SF Community Agencies Responding to Disasters, the San Francisco Department of Emergency Management, the United Way of the Bay Area and the Volunteer Center to streamline the response and recovery activities of San Francisco's community-based organizations and improve services to victims of disaster. The collaborative's efforts will establish a collaborative outreach program that will team nonprofits with public sector first-responders to streamline response and recovery efforts. San Francisco is one of six pilot cities chosen to participate in the national CAN initiative, which is working to create a national database to track disaster survivors

Unreinforced Masonry Building Program

An unreinforced masonry bearing wall building (UMB) is a building or structure having at least one unreinforced masonry (typically brick) bearing wall. UMBs have a strong likelihood of structural failure in the event of earthquakes, either by the collapse of walls or the entire building. In 1992, the Unreinforced Masonry Building Seismic Hazard Reduction Program and Ordinance required the retrofit of unreinforced masonry buildings (UMBs), to address their record of poor performance in earthquakes. The Department of Building Inspection is charged with oversight and enforcement of the program. As of February 2006, all UMB's were required to be in full compliance with the Ordinance. As of January 2007, all but approximately 270 of these buildings had been retrofit. The remaining upgrades should be carried out to complete the requirements of this program.

The Seismic Safety Retrofit Bond and Loan Program, also known as the UMB Loan Program, was authorized by San Francisco voters in 1992, authorizing $350 million in bonds for loans to owners of UMBs. As this program was intended to support the UMB Ordinance, it is largely completed. Approximately $3.5 million in market-rate funds remain, though additional bonds could be issued to restore funding. The program is administered by the Mayor's Office of Housing and a Loan Committee established by the Board of Supervisors.

Soft Story Wood-Frame Seismic Hazard Reduction Program

"Soft-story" buildings are wood-frame buildings with open fronts, usually large openings on the ground floor such as multiple garage doors or large storefront windows. Because of the lack of lateral in the first story, these buildings are at high risk for partial or total collapse in an earthquake. Particularly hazardous are corner buildings, where two sides of the building exhibit open fronts. DBI expects to require mandatory strengthening of soft-story wood-frame residential buildings of three or more stories and 5 or more residential units built before 1978. Other soft story buildings are expected to be subject to mandatory retrofit in following phases.

Other Civic Organizations and Resources

There are also several civic organizations and resources addressing the issue of seismic mitigation, preparation and recovery:

San Francisco Community Agencies Responding to Disasters
San Francisco Community Agencies Responding to Disasters (SFCARD) works with human service agencies serving vulnerable populations in San Francisco to ensure business continuity after a disaster. They provide extensive disaster preparedness training to support the capacity of local agencies and the vulnerable populations that they serve. In partnership with HELPLINK (211) and the Volunteer Center, SFCARD is creating a Disaster Database to assist Health and Human Service agencies before, during, and after a disaster.

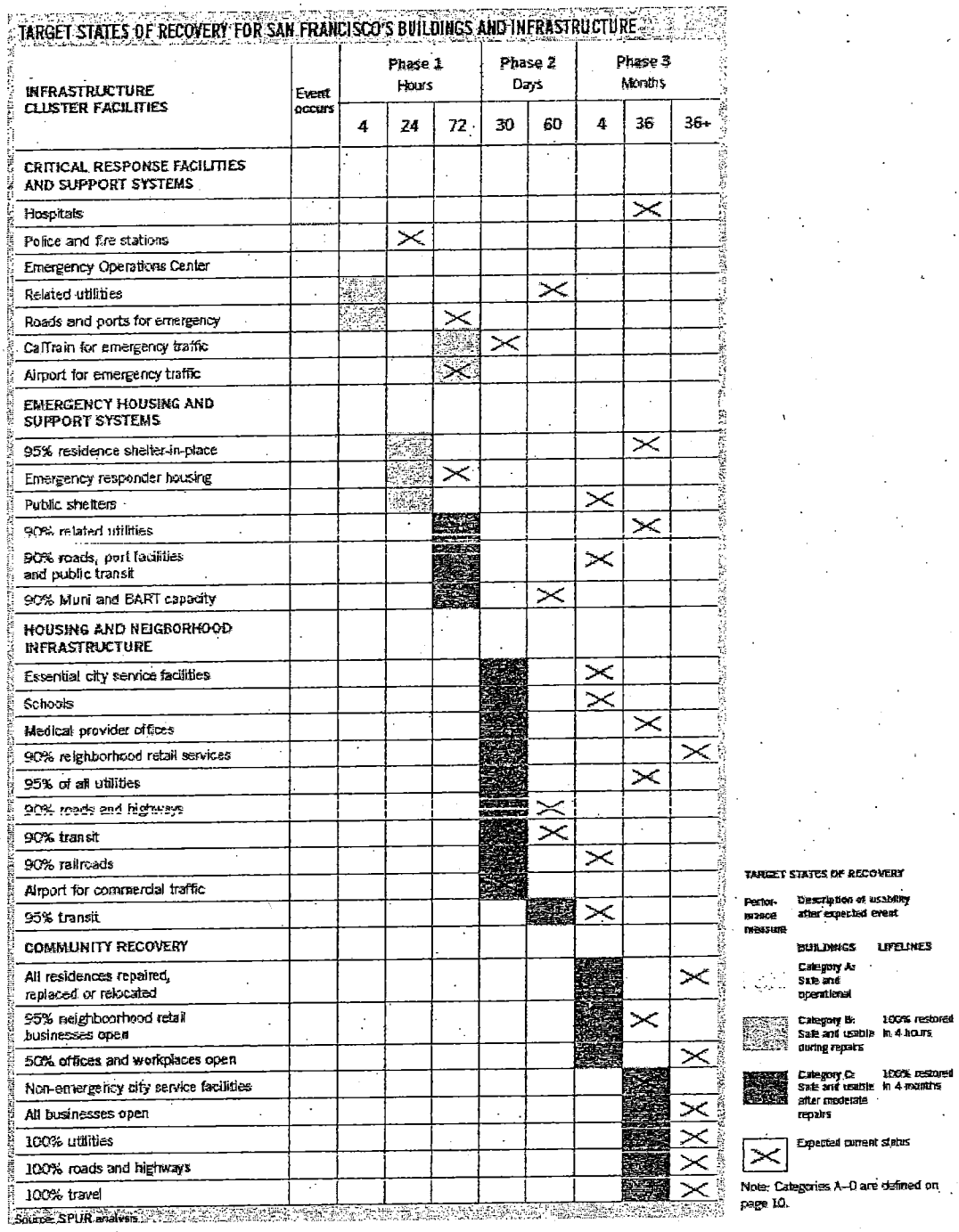
SF Coordinated Assistance Network
San Francisco Coordinated Assistance Network (SFCAN) is a collaborative group of nonprofit and faith-based agencies working together to strengthen San Francisco's disaster response and recovery systems. The primary purpose is to coordinate and utilize a shared client and resource information database that shares client data among members to enhance services to clients after a disaster. In addition, the collaboration works to create joint response and recovery plans that are integrated into the City's overall response plan and enhance existing community collaboration efforts. The core agencies involved in CAN are American Red Cross Bay Area, The Salvation Army, United Way of the Bay Area, HELPLINK (211), The Volunteer Center, National Voluntary Organizations Active in Disaster, Catholic Charities CYO, SF CARD, San Francisco Department of Emergency Management, and San Francisco Human Services Agency.

Vial of Life
This program targets seniors and people with disabilities and provides a mechanism for first responders to gain life-saving information about these individuals when responding to an emergency at the individual's residence. Important medical information is recorded on a single form and inserted into a vial that is then placed in the individual's refrigerator. Magnets and window decals are provided along with the form and vial so that responders know to look in the refrigerator upon arriving on scene. This program is distributed in partnership with the San Francisco Fire Department and San Francisco State University Community Involvement Program, among other programs that work with the target population.

SF Ready
SF Ready is a collaboration between the Chamber of Commerce, Department of Emergency Management and numerous concerned businesses. SF Ready produces roundtables every other month, free to the public, on topics of business emergency preparedness and business continuity.

San Francisco Urban Planning and Research Association – "Resilient City" Initiative
In 2006, earthquake professionals and policymakers in San Francisco joined forces in an initiative to identify and prioritize policies and actions that are needed to help ensure that San Francisco can rebound quickly from a major earthquake. Their efforts resulted in four major policy papers (to date) summarized in the "The Resilient City," policy paper adopted by the Board of the San Francisco Planning and Urban Research Association (SPUR) in 2008 (http://www.spur.org/policy/the-resilient-city). The document provides a vision for a resilient San Francisco as having:

Table 2: Target States of Recovery for San Francisco's Buildings and Infrastructure



"chosen to invest the time, energy, and political and economic capital to become a city that can rebound quickly from a natural disaster. It became a city that established performance objectives for buildings and for lifelines — those systems such as power, gas and water services, as well as communications and transportation systems. Enough homes have been retrofitted so that the vast majority of San Franciscans are able to shelter in place. A 'Lifelines Council' with influence over the preparation of critical services has ensured that the city's water, gas, electricity and sewer services are strong enough to be back in use within days. Seismic Silver and Seismic Gold buildings, defined by a new voluntary rating system, perform so well that they quickly become a model for all new housing in the region. The entire city is back on its feet within four months."

SPUR created Resilience Recovery Performance Targets (along with expected current status) for San Francisco (see Table 2 above). These targets established goals for an "expected" earthquake - a magnitude of 7.2 earthquake on the Peninsula segment of the San Andreas fault performance targets – for new and existing buildings, lifelines, and infrastructure at different phases in the recovery process.

Proposition M: The Accountable Planning Initiative

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Section 101.1 to the City's Planning Code to establish eight Priority Policies. These policies, and the sections of this Environmental Evaluation addressing the environmental issues associated with the policies, are: (1) preservation and enhancement of neighborhood-serving retail uses; (2) protection of neighborhood character (Question 1c, Land Use); (3) preservation and enhancement of affordable housing (Question 3b, Population and Housing, with regard to housing supply and displacement issues); (4) discouragement of commuter automobiles (Questions 5a, b, f, and g, Transportation and Circulation); (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership (Question 1c, Land Use); (6) maximization of earthquake preparedness (Questions 13a-d, Geology and Soils); (7) landmark and historic building preservation (Question 4a, Cultural Resources); and (8) protection of open space (Questions 8a and b, Wind and Shadow, and Questions 9a and c, Recreation). Prior to issuing a permit for any project which requires an Initial Study under CEQA, and prior to issuing a permit for any demolition, conversion, or change of use, and prior to taking any action which requires a finding of consistency with the General Plan, the City is required to find that the Proposed Project, in this case the policy update to the General Plan's Community Safety Element, is consistent with the Priority Policies.

The consistency of the Community Safety Element Update with the environmental topics associated with the Priority Policies is discussed in Section E, Evaluation of Environmental Effects, which provides information for use in the case report for the Community Safety Element Update. The case report and approval motions will contain the Planning Department's comprehensive project analysis and findings regarding consistency of the Community Safety Element General Plan Amendment with the Priority Policies.

Approvals Required

After completion and adoption of the environmental review document by the Planning Commission, the approvals required for the 2012 Community Safety Element Update are as follows:

Planning Commission General Plan amendment initiation, with the Commission's recommendation of approval, approval with modification, or rejection of the Community Safety Element Update to the Board of Supervisors. The Planning Commission must find that public necessity, convenience and general welfare require the proposed amendment. Rejection of a proposed amendment by the Planning Commission can be appealed to the Board of Supervisors.

Board of Supervisors Ordinance adopting the proposed Community Safety Element amendments.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

☐ Land Use	☐ Air Quality	☐ Biological Resources
☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Geology and Soils
☐ Population and Housing	☐ Wind and Shadow	☐ Hydrology and Water Quality
☐ Cultural and Paleo. Resources	☐ Recreation	☐ Hazards/Hazardous Materials
☐ Transportation and Circulation	☐ Utilities and Service Systems	☐ Mineral/Energy Resources
☐ Noise	☐ Public Services	☐ Agricultural and Forest Resources
		☒ Mandatory Findings of Significance

This Initial Study examines the project to identify potential effects on the environment. All items on the Initial Study Checklist that have been checked "Less than Significant Impact", "No Impact" or "Not Applicable" indicates that, upon evaluation, staff has determined that the 2012 Community Safety Element Update could not have a significant adverse environmental effect relating to that topic. A discussion is included for those issues checked "Less than Significant Impact" and for most items checked with "No Impact" or "Not Applicable". For all items checked "Not Applicable" or "No Impact" without discussion, the conclusions regarding potential significant adverse environmental effects are based upon field observation, staff experience and expertise on similar projects, and/or standard reference material available within the Planning Department, such as the Department's Transportation Impact Analysis Guidelines for Environmental Review, or the California Natural Diversity Database and maps, published by the California Department of Fish and Game.

On the basis of this study, the 2012 Community Safety Element Update would not result in adverse physical effects on the environment; all issues are discussed in Section E below. By its nature as a city-wide policy document, the analysis of the effects related to implementation of the

2012 Community Safety Element Update is cumulative; therefore, checklist responses consider individual and cumulative effects together. Cumulative impacts are also discussed in Topic E-19 Mandatory Findings of Significance in this Initial Study.

E. EVALUATION OF ENVIRONMENTAL EFFECTS

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
1. LAND USE AND LAND USE PLANNING— 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) Have a substantial impact upon the existing character of the vicinity?	☐	☐	☒	☐	☐

Hazard Mitigation and Preparedness policies and programs, which would take place before a disaster occurs with the goal of reducing the disruption caused by a disaster, would not result in any changes in current land use or community character. Continuing to use information about disaster risks in the review of future land use and building decisions would make future projects (themselves subject to a review of all of their environmental implications) less vulnerable to the land use disruptions which would occur after a disaster. Response and Recovery and Reconstruction policies and programs would take place after a disaster, in a context of substantial disruption to the land use patterns and neighborhood character of parts of San Francisco. The proposed policies are intended to minimize these disruptions.

Impact LU-1: Implementation of the Community Safety Element Update would not physically divide established communities. (Less than Significant)

Under implementation of the CSE Update, the City is expected to continue in their established locales and interrelate with their surrounding land uses in the future as they currently do, and the CSE Update policies would not physically divide existing communities. The CSE Update would continue to retain many of the existing policies as well as introduce new policies to strengthen the old CSE. Some of the existing policies that would be retained are the following: "Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes." (Policy 1.16 replaces Policy 2.8); "Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate rebuilding activity." (Policy 4.1 replaced Policy 4.4); and "Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality" (Policy 4.18 replaces Policy 4.3).

The CSE Update would introduce the following new policies: "Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies" (Policy 4.7); "Engage the community in the reconstruction planning process" (Policy 4.9); "Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible" (Policy 4.17).

Therefore, the CSE Update's policies seek to ensure that the character of San Francisco is preserved and maintained, and would therefore not physically divide existing communities or neighborhoods, both individually and cumulatively.

Impact LU-2: The CSE Update would not conflict with applicable land use plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect. (No Impact)

As discussed under Subsection C. Plans and Policies of this Initial Study, the CSE Update objectives and policies would not conflict with the General Plan, its Elements, or pertinent sections of the Planning Code or other regulations or programs so as to cause substantial, adverse environmental effects. Moreover, the CSE Update would also not conflict with other plans, policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect. In addition, the CSE Update would continue to retain the policy to "Rebuild after a major disaster consistent with established General Plan objectives and policies" (Policy 4.12 replaces Policy 4.1).

The proposed CSE Update would remove Objective 1 and 5, and Policies 1.1, 3.3, and 5.1 from the current CSE. In addition, all implementation measures from the current CSE have been removed from the Element and incorporated into other city plans and programs, including the Hazard Mitigation Plan, Resilient SF, and CAPSS implementation programs.

Roughly one-third of the objectives and policies in the CSE Update (e.g., 26 of the 88 total policies) correlate to existing policies and objectives in the current CSE, and promote similar policies to those in the existing CSE. The CSE Update would introduce 62 new objectives and policies, with 14 new policies in Objective 1 ("Reduce structural and non-structural hazards to life safety and minimize property damage resulting from future hazards"), 16 new policies in Objective 2 ("Be prepared for the onset of disaster by providing public education and training about earthquakes and other natural and man-made disasters, by readying the city's infrastructure, and by ensuring the necessary coordination is in place for a ready response"), 12 new policies in Objective 3 ("Establish strategies to address the immediate effects of a disaster"), and 20 new policies in Objective 4 ("Assure the sound, equitable and expedient reconstruction of San Francisco following a major disaster"). Implementation of these objectives and policies would not result in conflicts that would cause substantial adverse physical effects, either individually or cumulatively.

Impact LU-3: The CSE Update would not have a substantial impact upon the City's existing character. (Less than Significant)

The CSE Update Objective 1 calls for "Reducing structural and non-structural hazards to life safety and minimizing property damage resulting from future disasters." This Objective would

lessen the potential impact caused by a disaster which would reduce the overall potential impact upon the City's existing character. As stated previously, the CSE Update would maintain the following policy which calls for the City to "Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes" (Policy 1.16 replaces Policy 2.8).

The CSE Update would also maintain the following policy that calls for the City to "Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality" (Policy 4.18 replaces Policy 4.2). San Francisco neighborhoods have distinct characters, and often have long-term residents, businesses and institutions. Many of its neighborhoods have distinct cultural identities, and provide the bonds of community for their residents. The City, in cooperation with state and federal agencies, and community-based organizations, must manage rebuilding to maintain neighborhood character and identity, and to ensure that new development does not weaken this quality. As such, plans should provide opportunities for those who lived in the area to return to new or repaired homes and other facilities there. The City should explore methods of providing rights to re-occupancy for tenants that must vacate their unit because of reconstruction, renovation or improvement.

The CSE Update would introduce Policy 4.7 that would "Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies" and Policy 4.9 that would "Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality."

While no specific projects are currently proposed, the CSE Update focuses on seismic hazards, because the greatest risks to life and property in San Francisco result directly from the ground shaking, ground failure, and other impacts associated with large earthquakes. Other hazards, particularly man-made hazards, pose threats to the City's health and welfare, and must be considered here in terms of hazard mitigation, preparedness, response and recovery.

The proposed objectives and policies in the CSE Update would not result in a substantial adverse effect on the character of the City's communities. Future project proposals related to the CSE Update could require focused environmental review if the proposal has the potential to result in physical changes to the environment.

At the policy level, implementation of the CSE Update would not adversely affect the character of the City. As such, potential land use impacts of the CSE Update are less than significant, both individually and cumulatively.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
2. **AESTHETICS—Would the project:**					
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐	☐

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting?	☐	☐	☒	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties?	☐	☐	☒	☐	☐

Aesthetic Character

The visual setting of the City is varied, reflecting the unique visual characteristics of its topography, street grids, public open spaces, built environment and distinct neighborhoods. San Francisco's skyline is characterized by a general pattern of densely clustered high-rise commercial development in the downtown core that tapers off to low-rise development at its periphery. This compact urban form signifies the downtown as the center of commerce and activity and produces a downtown "mound," distinctive in views from the City's numerous hills. Outside of the highly commercial and built-up downtown core, much of the City is characterized by unique residential neighborhoods, which each exhibit their own distinctive visual character. Neighborhoods within the City vary greatly in terms of density, scale, architectural style, and general design pattern.

Views

A "viewshed" refers to the visual qualities of a geographical area that are defined by the horizon, topography, and other natural features that give an area its visual boundary and context, which are often both characterized by and contrast with urban development in San Francisco. Known for its abundance of natural beauty and panoramic views, San Francisco is surrounded on three sides by water and featured by parks, lakes, and vistas. The Pacific Ocean, San Francisco Bay and their respective shorelines are considered by many to be the City's most lauded natural resources, offering significant opportunities for scenic views. The City's natural hills and ridges also define neighborhoods and provide contrast to the spacious setting provided by the bay and ocean waters.

The City contains many prominent viewsheds. The several roadways approaching and within the City provide views of the cityscape, the Golden Gate and Bay bridges, urban forests such as the Presidio and Golden Gate Park, and important historic or architectural landmarks such as the Palace of Fine Arts, Grace Cathedral, and the Ferry Building. Aside from the waters of the Bay, easterly views in the City are generally urban in character, with high-rise buildings visible at the Civic Center, and in downtown along Market Street.

The areas of the City within the elevated topography include Twin Peaks, Mt. Sutro, Mt. Davidson, Mt. Olympus, Glen Canyon, Buena Vista, and Forest Hill are typically provided with panoramic views of the City. Persons at the top of these inclines enjoy 360-degree views, which include the Bay, the downtown skyline, the Pacific Ocean, the Golden Gate and Bay bridges, and several other San Francisco landmarks and visual resources. Due to the proximity to the ocean and parks and open spaces, westerly views of the City generally feature more natural areas than those of the east. Low lying areas and valleys, such as Noe Valley, the Castro, Hayes Valley, and Cole Valley benefit from views of surrounding topography, and the hills and ridges themselves are aesthetically pleasing features. Sutro Tower, located southeast of Mt. Sutro, is a dominant part of the skyline in the central part of the City.

Impact AE-1: The CSE Update policies and objectives would not have a substantial adverse affect on scenic vistas or damage scenic resources. (Less than Significant)

A review of the objectives and policies in the proposed CSE Update (see Table 1, beginning on p. 5) indicate that none would have the potential to directly alter scenic vistas or damage scenic resources. In addition, the CSE Update would maintain the existing policy that directs the City to "Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes " (Policy 1.16 replaces Policy 2.8) and would "Rebuild after a major disaster consistent with established General Plan objectives and policies" (Policy 4.12 replaces Policy 4.1). In addition, the CSE Update would introduce a new policy that would "Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies" (Policy 4.7).

Review procedures currently exist that regulate potential physical alteration, and the policies in the CSE Update would not alter or otherwise amend existing height districts. Therefore, the degree of potential physical change associated with these policies is considered minimal, because these policies reflect a continuation of existing policies and therefore a continuation of existing visual conditions. Based on the above, the CSE Update's policies and objectives would not have a substantial adverse effect on scenic vistas or damage scenic resources, thus this impact is considered less than significant, both individually and cumulatively.

Impact AE-2: The CSE Update policies and objectives would not degrade the City's aesthetic character. (Less than Significant)

Many of the proposed Hazard Mitigation policies in the CSE Update concern the built environment. Some are intended to assure that new development, much of which is subject to environmental review, meets current safety standards. These policies would not have predictably negative effects on the visual quality of future development, as there is no clear or substantial correlation between structural safety policies and building appearances. If successful, these policies would result in development less likely to suffer damage in a disaster, potentially reducing the negative aesthetic effect of a disaster.

Some Mitigation policies under Objective 1 in the CSE Update call for future programs which could result in visual changes to the existing environment. However, this can not be known or analyzed until the programs are developed. At that time, they would be subject to environmental

review. The proposed changes to Preparedness policies under Objective 2 would not result in physical changes to the visual environment. Response (Objective 3), Recovery, and Reconstruction (Objective 4) policies and programs would take place, after a disaster, in a context of substantial disruption to San Francisco's visual quality. The proposed policies are intended to minimize and respond to these disruptions.

As previously stated, the CSE Update would introduce a new policy that would "Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies" (Policy 4.7) and would maintain an existing policy that would call for the City to "Rebuild after a major disaster consistent with established General Plan objectives and policies" (Policy 4.12). Therefore, the CSE Update's objectives and policies do not represent a substantial departure from the existing policy context.

Any future projects related to the implementation of the CSE Update policies that include the alteration, demolition, or construction of buildings, would be subject to project-specific environmental review to evaluate potential impacts to aesthetic character. Because the CSE Update's policies and objectives would not be considered to degrade the existing aesthetic character of the City, this impact is considered to be less than significant, both individually and cumulatively.

Impact AE-3: The CSE Update policies and objectives would not create new sources of substantial light or glare which would substantially impact other people or properties. (Less than Significant)

City Resolution 9212 prohibits the use of highly reflective or mirrored glass in new construction. New development would be required to comply with this resolution. Therefore, the objectives and policies in the CSE Update are not expected to result in substantial light and glare impacts on people or properties.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
3. POPULATION AND HOUSING— Would the project:					
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒	☐
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	☐	☐	☐	☒	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐

In general, a project would be considered growth-inducing if its implementation would result in a substantial population increase and/or new development that might not occur if the project were not implemented. As of 2009, the U.S. Census indicates that the City and County's total population is approximately 815,358 persons. The total number of housing units in San Francisco is 361,218.[5]

The Planning Department routinely prepares projections for the purpose of analyzing plans and projects undergoing environmental review. While the assumptions of these data sets may vary depending on the circumstances surrounding a specific project, the Planning Department recently completed a citywide projection capturing citywide growth expectations by 2030 designed to closely match the recently adopted Association of Bay Area Governments (ABAG) Projections 2009 target, which take into account local knowledge of projects currently in various stages of the entitlement process, commonly referred to as the development pipeline. Table 3 shows population and housing projections through the horizon year of 2030.

Table 3: Household Population and Jobs Forecast: 2000-2030

	2000	2005	2030	Growth 2000-2030	Growth 2005-2030
Households	329,700	341,478	403,292	73,592	61,814
Household Population	756,976	783,441	916,800	159,824	133,359
Jobs	642,500	533,090	748,100	105,600	195,010

Sources: ABAG, San Francisco Planning Department, 2011.

Impact PH-1: Implementation of the CSE Update objectives and policies would not induce substantial population growth in San Francisco, either directly or indirectly. (No Impact)

The objectives and policies in the CSE Update are intended to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. As shown in Table 3, above, the City and County of San Francisco projects growth in overall households, household population and jobs in the near future. The CSE Update does not include policies or objectives that directly pertain to the development of new or renovated housing or economic development, such as jobs. The CSE Update would not induce substantial population growth either directly or indirectly. Therefore, the CSE Update would not impact the City's population growth, either individually or cumulatively.

5 The Census Bureau's Population Estimates Program (PEP) produces July 1 estimates for years after the last published decennial census (2000). Existing data series such as births, deaths, and domestic and international immigration, are used to update the decennial census base counts. PEP estimates are used in federal funding allocations, in setting the levels of national surveys, and in monitoring recent demographic changes. Information from the United States Census Bureau, accessed on April 5, 2012 at: *http://quickfacts.census.gov/qfd/states/06/06075.html*

Impact PH-2: Implementation of the CSE Update objectives and policies would not displace existing housing units or create demand for additional housing, necessitating the construction of replacement housing. (Less than Significant)

A large earthquake or other disaster could result in substantial displacement of population, and would probably reduce the housing supply and increase the demand for housing. The proposed Mitigation, Preparedness, Response, and Recovery and Reconstruction policies are intended to reduce possible disaster impacts and address them in an effective and equitable way.

Implementation of the policies could ultimately affect the existing housing supply and/or displace residents, depending on the scope of programs that may be proposed to mitigate hazards of various construction types such as non-ductile concrete buildings. Such impacts would be assessed in separate, detailed environmental review at the time a specific program may be proposed.

The CSE Update objectives or policies, similar to those in the existing CSE, would neither displace existing housing units nor create demand for additional housing, the construction of which could have potential adverse environmental effects. As such, the CSE Update would have less than significant, both individual and cumulative, impacts on population and housing.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
4. CULTURAL AND PALEONTOLOGICAL RESOURCES—Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco *Planning Code*?	☐	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐	☐

Historic architectural resource impacts are considered to be significant if adoption of the CSE Update would cause a substantial adverse change in the significance of an historical resource (CEQA Section 21084.1). The assessment of potential impacts on "historical resources," as defined by CEQA Guidelines Section 15064.5, is a two-step analysis. First, a determination is made as to whether a property contains an "historical resource" as defined under CEQA. The second step of the historical resource analysis is to determine whether the project could cause substantial adverse changes to historical resources. A substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would

be materially impaired. Thus, this Initial Study evaluates potential impacts of the CSE Update policies to historical resources located within the City.

There are approximately 19,740 identified historic resources located throughout the City and County of San Francisco.[6] (Source: San Francisco Planning Department, 2011.) A historic resource can be a building, structure, district, object, site, or cultural landscape. These identified resources are listed in or have been found eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR), designated as San Francisco Planning Code Articles 10 and 11 properties, or listed in local adopted registers and surveys (e.g. the *Here Today* survey, adopted as a local register by the Board of Supervisors in 1970). Below is a brief summary of the City's identified historic resources.

Identified Historic Resources

National and California Register Historic Resources

The National Register of Historic Places (NRHP) is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources. Similarly, the California Register of Historical Resources (CRHR) is a comprehensive listing of California's historical resources, including those of local, state, and national significance. The California Register includes resources formally determined eligible for, or listed in, the National Register of Historic Places. There are approximately 240 individual resources listed on the CRHR in San Francisco, approximately 160 of which are also listed on the NRHP. Furthermore, there are approximately 45 historic districts listed on the CRHR, 26 of which are also listed on the NRHP. The districts are listed below and marked (*) if listed on both registers.

- 2nd and Howard Streets*
- Alcatraz*
- Aquatic Park*
- Aronson
- Bush Street Cottage Row*
- Central Embarcadero Piers
- Coast Guard San Francisco Depot
- Conservatory Valley
- Fort Funston
- Fort Mason*
- Francis "Lefty" O'Doul Bridge
- Fort Miley Military Reservation*
- Fort Point*
- Golden Gate Park*
- Hayes Valley
- Industrial District, Rincon Point/South Beach
- Jackson Brewing Company*
- Jackson Square/Barbary Coast*

[6] This number was generated by calculating the number of Category A buildings listed in Parcel Information Database.

- Laguna Honda Hospital And Rehabilitation Center
- Liberty Street*
- Light Station
- Lower Nob Hill Apartment Hotel*
- Lyon Street
- Market Street Theatre and Loft*
- North Point Park/Marina
- Old Ohio Street Houses
- Panhandle/Avenue Heading To Golden Gate Park
- Piers 26-28: Located at Harrison and Bryant Streets
- Point Lobos Archeological Sites*
- Presidio Of San Francisco*
- Punta Medanos/Batteria Yerba Buena, Fort Mason/Black Point
- Russian Hill, Russian Hill/Vallejo Street*
- Russian Hill/Macondray Lane*
- Russian Hill/Paris Block*
- San Francisco Civic Center*
- San Francisco Port of Embarkation, US Army*
- San Francisco Cable Cars
- San Francisco State Teacher's College*
- San Francisco-Oakland Bay Bridge
- So. Pacific Company Hospital, Mercy Family Plaza*
- Uptown Tenderloin*
- Veterans Affairs Medical Center*
- Southeast Farallon Island
- Yerba Buena Island Lighthouse, Goat Island Lighthouse*
- Yerba Bueana Island Senior Officers Quarters*

Article 10 Historic Resources

Adopted by the City in 1967, Article 10 of the Planning Code provides San Francisco the ability to identify, designate and protect landmarks. As of April 2012, there are 262 individual properties designated under Article 10 and eleven (11) historic districts designated under Article 10 (listed below).

Alamo Square: Area generally bound by Golden Gate Avenue to the north, Divisadero Street to the west, Webster Street to the east and Fell Street to the South.

Blackstone Court: Area generally bound by Lombard Street to the north, Franklin Street to the east, Gough Street to the west and Greenwich Street to the south.

Bush Street Cottage Row: Area generally bound by Bush Street to the north, Webster Street to the east, Fillmore Street to the west and Sutter Street to the south.

Civic Center: Area generally bound by Van Ness Avenue to the west, Market Street to the south, Golden Gate Avenue to the north, and Seventh Street to the east.

Dogpatch: Area generally bound by Mariposa Street to the north, Tubbs Street to the south, 3rd Street to the east, and Indiana Street to the west.

Jackson Square: Area generally bound by Broadway to the north, Sansome Street to the east, Washington Street to the south and Columbus Avenue to the west.

Liberty Hill: Area generally bound by Twentieth Street to the north, Mission Street to the east, Dolores Street to the west and Twenty-Second Street to the south.

Northeast Waterfront: Area generally bound by Greenwich Street to the north, the Embarcadero to the east, Montgomery Street to the west and Broadway to the south.

South End: Area generally bound by Stillman Street to the north, First Street to the east, Ritch Street to the west and King Street to the south.

Telegraph Hill: Area generally bound by Greenwich Street to the north, Sansome Street to the east, Montgomery Street to the west and Green Street to the south.

Webster Street: Area generally bound by Jackson Street to the north, Buchanan Street to the east, Fillmore Street to the west and Clay Street to the south.

Article 11 Historic Resources

Adopted by the City in 1985, Article 11 of the Planning Code identifies and protects historic buildings in the downtown area based on architectural quality and contribution to the environment. Article 11 identifies both individually significant buildings and buildings that contribute to a district. As of April 2012, there are 251 individually significant buildings designated under Article 11 and six (6) districts designated under Article 11 (listed below).

Commercial-Leidesdorff: Area generally bound by Market Street to the north, Tehama Street to the south, Anthony Street to the east and Annie Street to the west.

Front-California: Area generally bound by Clay Street to the north, Sacramento Street to the south, Sansome Street to the east and Montgomery Street to the west.

Kearny-Belden: Area generally bound by Pine Street to the north, Bush Street to the south, Montgomery Street to the east and Kearny Street to the west.

Kearny-Market-Sutter-Mason: Area generally bound by Sacramento Street to the north, California Street to the south, Battery Street to the east and Front Street to the west.

New Montgomery-Second Street: Area generally bound by Market Street to the north, Howard Street to the south, Second Street to the east and Annie Street to the west.

Pine-Sansome: Area generally bound by California Street to the north, Bush Street to the south, Sansome Street to the east and Montgomery Street to the west.

Unidentified Historic Resources

In addition to the previously identified historic resources within the City's boundaries, there are an unknown number of properties over 50 years in age that have not yet been evaluated for historical significance. These properties would require further consultation and project-specific environmental review if future projects proposed their alteration or demolition. The majority of buildings fall within this unevaluated category of properties and are identified under the Planning Department's CEQA Review Procedures for Historic Resources and in its Parcel Information Database as "Category B" – properties (Properties Requiring Further Consultation and Review).

Impact CP-1: The CSE Update would not have a significant impact on historic architectural resources. (Less than Significant)

As explained in the Community Safety Framework and in the CSE Update, the City would continue policies from the existing CSE and add a number of new policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters while keeping the intention of preserving and protecting historic resources rather than eliminating or reducing them.

Older buildings are among those most vulnerable to destruction or heavy damage from a large earthquake as they may not have the more recent engineering features that make buildings more resistant to ground shaking. In addition, many of these older buildings are located in areas near the Bay and the historic Bay inlets that were among the earliest parts of the City to be settled, and have the softest soil. These older buildings are also likely to have ornate façade structures that, in the event of an earthquake, can detach and threaten people on the street. The part of the City most vulnerable to fire, the dense downtown area, also contains many historic structures. A major earthquake could result in an irreplaceable loss of the historic fabric of San Francisco.

When new programs are being considered by the City to abate hazards posed by existing buildings and structures, the likely impacts of those programs on historic buildings must be thoroughly investigated. The resulting programs should encourage the retrofit of historic buildings in ways that preserve their architectural design character while increasing life safety. When development concessions, transfers of development rights or City funds are granted to promote preservation of historic buildings, there should be reasonable measures taken to increase the building's chances of surviving future earthquakes. Policy 1.15 of the CSE Update calls for the City to "Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes."

Preservation of the City's historic resources is an immediate concern when damage is being assessed. The older construction techniques of historic buildings make them more vulnerable to damage, and if the damage is noted without recognition of the historic resources value, the building can be at risk of further damage or demolition.

Accurate information about heritage resources is fundamental to ensuring resources are not lost. Complete survey information ensures that resource documentation of relevant buildings exists, and this information can be mapped and used by assessors in tagging buildings post-disaster. Since the year 2000, the Planning Department has been actively engaged in survey work through the Citywide Survey Program. The focus of the program is on neighborhoods that are undergoing long-range planning efforts or are the focus of intense development activity, but the Citywide Survey Program will continue survey efforts in neighborhoods outside of Area Plan study areas. While that Citywide Survey is underway, the City will make use of existing survey information, including privately developed property reviews, and ensure it is made available to DBI and any other relevant contractors who may be charged with doing evaluations of damaged buildings.

Post-disaster assessment will include an analysis of the extent of the damage to historic areas and resources. In a typical assessment scenario, assessors will attach a green tag if a building is structurally sound, a yellow tag where repairs are needed, and a red tag if the structure is uninhabitable. This system will ensure sufficient protection for historic resources post-disaster, in that all tagged buildings receive further detailed evaluation considering survey information before any steps towards demolition are taken. The system could also include separate placards identifying the building as a historic resource. Without such identification, the buildings are at risk. To address these concerns, the CSE Update includes a new policy that "Ensure historic resources are protected in the aftermath of a disaster." (Policy 3.11).

The rebuilding and reconstruction efforts that will need to be undertaken after a disaster will need to be much more swift in repairing lifelines, homes, and other resources the city depends on. In the period after a disaster, the Department of Building Inspection (DBI) and the Planning Department will likely see a surge in permit applications. While DBI already maintains procedures to deal with emergency repairs, the City does not have plans to deal with the sustained demand that may result from large-scale reconstruction. Upon completion of the advance recovery framework, a task force should develop a recovery and repair ordinance that help implement the framework and facilitate the repair and reconstruction of buildings following disaster. The recovery and repair ordinance would build upon existing building and planning code standards and policies to facilitate an efficient reconstruction process, help to streamline and expedite the permitting and review process, while avoiding a hastily administered permitting process. The repair and reconstruction Ordinance would establish clear permit processing and review procedures to expedite rebuilding in the post-disaster period, while providing the amount of review necessary to ensure that reconstruction meets the City's objectives and appropriate local policies, plans, and code standards, yet is economically feasible.

The repair and reconstruction ordinance would address historic buildings to ensure repairs maintain the integrity of the structure without adversely affecting its historic nature. To address these concerns, the CSE Update includes a new policy that would "As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance, to facilitate the repair and reconstruction of buildings." (Policy 4.2)

In addition to the Planning Department's procedures already in place for the review of historic resources, the above policies (Policy 1.15, 3.11, and 4.2) ensure an additional layer of protection for known and potential historic resources.

The CSE Update includes policies that may indirectly result in material changes to buildings, structures, objects, and sites, such as encouraging property owners to retrofit soft-story, wood-frame residential buildings (Policy 1.13) and by having the goal to create and implement bond and other funding opportunities in order to abate structural and non-structural hazards in City-owned structures (Policy 1.15). In such instances, the Planning Department's *CEQA Review Procedures for Historic Resources* would require further consultation and project-specific environmental review. In accordance with the Planning Department's CEQA review policy, any project that involves the major alteration or demolition of a property over 50 years of age is required to undergo environmental review that includes an evaluation of the property's historical significance and, if a resource is present, an analysis of project impacts. Therefore, any future projects related to the implementation of the CSE Update policies that include the alteration,

demolition, or construction of buildings would be subject to project-specific environmental review that evaluates potential impacts to historic resources.

In sum, for the reasons stated above, implementation of the objectives and policies of the CSE Update would not result in adverse impacts to historical resources since they do not recommend the demolition or alteration of historic buildings and do not directly propose material changes to buildings, structures, objects, sites, historic districts and cultural landscapes. As previously stated, any future projects indirectly related to the CSE Update would be subject to project-specific environmental review. As such, the CSE policies and objectives are considered to have a less-than-significant effect on historical resources, both individually and cumulatively.

Impact CP-2: Implementation of the CSE Update would not adversely affect legally-significant archeological resources. (Less than Significant)

ARCHEOLOGICAL CONTEXT

San Francisco: The Archeological Record

The City and County of San Francisco has a rich, complex, and an unusually well-preserved archeological record that extends back to nearly 6,000 years before the present (B.P.). Our knowledge of all of the significant historical periods of pre-Modern San Francisco – the Hispanic Period (1776-1846), Yerba Buena Period (1835-1848), the Early and Late Gold Rush Periods (1848-1860), the Victorian Period (1860-1906) – continues to be expanded by the discovery and research of archeological sites associated with these periods.

Archeological resources in San Francisco can be vertically found from as deep as 75 feet below existing grade (CA-SFR-28) to as shallow as at the existing ground surface (Lake Merced Midden). An archeological resource can be as massive in scale as a buried Gold Rush period storeship (the General Harrison), as complex as representing occupations of several different peoples over a period of 3,000 years CA-SFR-4), as fragile and disperse as a prehistoric lithic scatter site (CA-SFR-113), or as small as a single artifact (CA-SFR-25). Since human occupation and use has occurred throughout the entire northern San Francisco peninsula extending back to geologic/climatic eras when the bay and ocean shorelines were considerably beyond and lower than their current alignments, the archeological record lies, potentially, throughout the City and beyond existing shorelines.

San Francisco: The Documentation of the Archeological Record

A sizable archeological literature exists for San Francisco supported by a considerable amount of archeological field investigation. Most of this documentation has been more descriptive than analytic in its approach and most field projects have been archeological salvage responses to development proposals rather than research-initiated projects. Until the last two decades, archeologists had tended to focus on a small set of resource types: prehistoric sites, Gold Rush period sites, including buried ships and storeships, Overseas Chinese sites, and burials from former cemeteries. Since the 1990's as a result of ever increasing archeological discoveries and the adoption of new research approaches by archeologists, a growing awareness of the wide range and complexity of the City's archeological record has improved local cultural resource management practices by raising professional standards in research and documentation,

increased use of regional and comparative site studies approaches, and greater emphasis on the archeological study of population groups that are poorly documented in the written historical record.

San Francisco: The Significance of the Archeological Record

The archeological literature for San Francisco clearly demonstrates that San Francisco's archeological record has significant research value with respect to an unusually broad range of research domains. A small sample of research themes associated with archeological sites in San Francisco includes: paleoenvironmental change; prehistoric settlement patterns; prehistoric social interaction and change; prehistoric cultural chronology; prehistoric resource intensification and adaptive change; shell mounds as constructed landscapes; Mission Dolores water conveyance system; social stratification within the neophyte village; the development of the Gold Rush period waterfront; Gold Rush period storeships; Overseas Chinese fishing camp settlements; Chinese farms; Gold Rush period mining equipment industries; the emergence of the middle class; Victorian values and the concept of nuisance; Victorian values and the rise of charitable institutions; the social role of cemeteries; health and violence in the 19th century; the economics of refuse in the 19th century; small craft boatyards; ethnic and religious/cultural identity; and working class identity.

Significance of the Archeological Record: Special Cases

Archeological research in San Francisco has tended to give special significance to archeological resources associated with the Prehistoric period, the Hispanic Period (1776-1850) and the Yerba Buena Period (1835-1848). Archeological deposits associated with these periods may have legal-significance whether or not they possess, in their own right, research-value because the deposits may have special characteristics that make them, otherwise, legally significant, such as their scarcity (San Francisco prehistoric and Native American archeological sites) or their eligibility for listing in the State or National Register on the basis of their association with a significant historical event (the Franciscan missionization of Indigenous people in California or the original non-Indigenous settlement of San Francisco).

REGULATORY CONTEXT

CEQA considers archaeological resources as an intrinsic part of the physical environment and, thus, requires for any project subject to CEQA-review that its potential to adversely affect an archaeological resource be analyzed (*CEQA* Sect. 21083.2). For a project that may have an adverse effect on a significant archeological resource, CEQA requires preparation of an environmental impact report (*CEQA and Guidelines*. Sect. 21083.2, Sect. 15065). CEQA recognizes two different categories of significant archeological resources: a "unique" archeological resource (*CEQA* Sect. 21083.2) and an archeological resource that qualifies as a "historical resource" under CEQA (*CEQA and Guidelines*. 21084.1, 15064.5).

Significance of Archeological Resources

An archeological resource can be significant as both or either a "unique" archeological resource and an "historical resource" but the process by which the resource is identified, under CEQA, as either one or the other is distinct (*CEQA and Guidelines* 21083.2(g) and 15064.5(a)(2)).

An archeological resource is an "*historical resource*" under CEQA if the resource is:

1) listed on or determined eligible for listing on the CRHR (*CEQA Guidelines* Sect. 15064.5). This includes National Register-listed or –eligible archeological properties.
2) listed in a "local register of historical resources"[7]
3) listed in a "historical resource survey". (*CEQA Guidelines* Sect. 15064.5(a)(2)).

Generally, an archeological resource is determined to be an "historical resource", due to its eligibility for listing to the CRHR/NRHP because of the potential scientific value of the resource, that is, "has yielded, or may be likely to yield, information important in prehistory or history" (*CEQA and Guidelines* Sect. 15064.5 (a)(3)). An archeological resource may be CRHR-eligible under other Evaluation Criteria, such as Criterion 1, association with events that have made a significant contribution to the broad patterns of history; Criterion 2, association with the lives of historically important persons; or Criterion 3, association with the distinctive characteristics of a type, period, region, or method of construction. Appropriate treatment for archeological properties that are CRHR-eligible under Criteria other than Criterion 4 may be different than that for a resource that is significant exclusively for its scientific value.

Failure of an archeological resource to be listed in any of these historical inventories, is not sufficient to conclude that the archeological resource is not an "historical resource". When the lead agency believes there may be grounds for a determination that an archeological resource is a "historical resource", then the lead agency should evaluate the resource for eligibility for listing to the CRHR (*CEQA Guidelines* Sect. 15064.5(a)(4)).

A "*unique archeological resource*" is a category of archeological resources created by the CEQA statutes (*CEQA Guidelines* Sect. 21083.2(g)). An archeological resource is a unique archeological resource if it meets any of one of three criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type;
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Under CEQA, evaluation of an archeological resource as an "historical resource" is privileged over the evaluation of the resource as a "unique archaeological resource", in that, CEQA requires that "when a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource" (*CEQA* Sect. 15064.5 (c)(1).

Evaluation of an Archaeological Resource as Scientifically Significant

In requiring that a potentially affected archeological resource be evaluated as an historical resource, that is as an archeological site of sufficient scientific value to be CRHR-eligible, CEQA

[7] A "local register of historical resources" is a list of historical or archeological properties officially adopted by ordinance or resolution by a local government.(Public Resources Code 5020.1 (k).

presupposes that the published guidance of the California Office of Historic Preservation (OHP) for CEQA providers is to serve as the methodological standard by which the scientific, and thus, the CRHR-eligibility, of an archeological resource is to be evaluated. As guidance for the evaluation of the scientific value of an archeological resource, the OHP has issued two guidelines: *Archaeological Resource Management Reports* (1989) and the *Guidelines for Archaeological Research Designs* (1991).

Integrity of Archeological Resource

Integrity is an essential criterion in determining that a resource, including an archeological resource, is an historical resource. In terms of CEQA "integrity" can, in part, be expressed in the requirement that an historical resource must retain "the physical characteristics that convey its historical significance" (CEQA § 15064.5 (b)).

For an archeological resource that is evaluated for CRHR-eligibility under Evaluation Criterion 4, "has yielded or may be likely to yield information important to prehistory or history", integrity is conceptually different than how it is usually applied to the built environment. For an historic building, possessing integrity means that the building retains the defining physical characteristics from the period of significance of the building. In archeology, an archeological deposit or feature may have undergone substantial physical change from the time of its deposition but it may yet have sufficient integrity to qualify as a historical resource. The integrity test for an archeological resource is whether the resource can yield sufficient data (in type, quantity, quality, diagnosticity) to address significant research questions. Thus, in archeology "integrity" is often closely associated with the development of a research design that identifies the types of physical characteristics ("data needs") that must be present in the archeological resource and its physical context to adequately address research questions appropriate to the archeological resource.

Significant Adverse Effect on an Archeological Resource

The determination of whether an effect on an archeological resource is significant depends on the effect of the project on those characteristics of the archeological resource that make the archeological resource significant. For an archeological resource that is an historical resource because of its prehistoric or historical information value, that is, its scientific data, a significant effect is impairment of the potential information value of the resource.

The depositional context of an archeological resource, especially soils stratigraphy can be informationally important to the resource in terms of datation and reconstructing the characteristics of the resource present at the time of deposition and interpreting the impacts of later deposition events on the resource. Thus, for an archeological resource eligible to the CRHR under Criterion 4, a significant adverse effect to its significance may not be limited to impacts on the artifactual material but may include effects on the soils matrix in which the artifactual matrix is situated.

Mitigation of Adverse Effect to an Archeological Resource

Preservation in place is the preferred treatment of an archeological resource (*CEQA* and *Guidelines* Sect. 21083.2(b); 15126.4 (b)(3)(a)). When preservation in place of an archeological resource is not feasible, data recovery, in accord with a data recovery plan prepared and adopted by the lead agency prior to any soils disturbance, is the appropriate mitigation (*CEQA* 15126.4 (b)(3)(C)). In addition to data recovery, under CEQA , the mitigation of effects to an

archeological resource that is significant for its scientific value, requires curation of the recovered scientifically significant data in an appropriate curation facility (*CEQA* 15126.4(b)(3)(C) , that is a curation facility compliant with the *Guidelines for the Curation of Archaeological Collections* (California Office of Historic Preservation. 1993). Final studies reporting the interpretation, results, and analysis of data recovered from the archeological site are to be deposited in the California Historical Resources Regional Information Center (*CEQA Guidelines* 15126.4(b)(3)(C).

Effects to Human Remains

Under State law, human remains and associated burial items may be significant resources in two ways: they may be significant to descendent communities for patrimonial, cultural, lineage, and religious reasons and human remains may also be important to the scientific community, such as prehistorians, epidemiologists, and physical anthropologists. The specific stake of some descendant groups in ancestral burials is a matter of law for some groups, such as Native Americans (*CEQA Guidelines* 15064.5 (d), Public Resources Code Sect. 5097.98). In other cases, the concerns of the associated descendent group regarding appropriate treatment and disposition of discovered human burials may become known only through outreach. Beliefs concerning appropriate treatment, study, and disposition of human remains and associated burial items may be inconsistent and even conflictual between descendent and scientific communities. CEQA and other State regulations concerning Native American human remains provide the following procedural requirements to assist in avoiding potential adverse effects to human remains within the contexts of their value to both descendants communities and the scientific community:

- When an initial study identifies the existence or probable likelihood that a project would impact Native American human remains, the lead agency is to contact and work with the appropriate Native American representatives identified through the Native American Heritage Commission (NAHC) to develop an agreement for the treatment and disposal of the human remains and any associated burial items (*CEQA Guidelines* 15064.5 (d), Public Resources Code Sect. 5097.98)

- If human remains are accidentally discovered, the county coroner must be contacted. If the county coroner determines that the human remains are Native American, the coroner must contact the NAHC within 24 hours. The NAHC must identify the most likely descendant (MLD) to provide for the opportunity to make recommendations for the treatment and disposal of the human remains and associated burial items. If the MLD fails to make recommendations within 24 hours of notification or the project applicant rejects the recommendations of the MLD, the Native American human remains and associated burial items must be reburied in a location not subject to future disturbance within the project site (Public Resources Code Sect. 5097.98).

- If potentially affected human remains/burial may have scientific significance, whether or not having significance to Native Americans or other descendent communities, then under CEQA, the appropriate mitigation of effect may require the recovery of the scientific information of the remains/burial through identification, evaluation, data recovery, analysis, and interpretation (CEQA *Guidelines* 15064.5(c)(2)).

Consultation with Descendant Communities:

Although not a requirement derived from CEQA, the cosmopolitan nature and history of San Francisco necessitates cultural management sensitivity to archeological remains associated with local indigenous, ethnic, overseas, and religious communities. On discovery of an archeological site[8] associated with descendant Native Americans, the Overseas Chinese or, as appropriate any other community, the ERO should seek consultation with an appropriate representative[9] of the descendant group with respect to appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. Documentary products resulting from archeological research of the descendant community associated with the site should be made available to the community.

IMPACTS

Analysis of the Potential to Affect Archeological Resources

The proposed CSE Update would only result, indirectly and directly, in revisions, additions, and excisions of the CSE of 1997. Since the adoption of the proposed CSE Update would only result in programmatic level changes, it is not possible to identify potential specific physical effects to legally-significant[10] archeological resources that may result from physical projects or activities enabled by changes in the policies and objectives of the existing CSE. The CSE Update focuses on seismic hazards because ground shaking, ground failure, and other impacts associated with large earthquakes pose the greatest life and property risks in San Francisco. As noted in the Update, the risks from large-scale seismic events are generally greatest in areas of artificial fill. In San Francisco, areas of expansive fill often correspond to areas of highest archeological sensitivity for archeological resources, such as the former Yerba Buena Cove, SoMa area, Bayview, former Islais Creek Estuary, Hunter's Point, and Mission Creek. Implementation of the objectives and policies of the CSE Update would not result in any adverse effects to archeological resources since they would not directly involve any material change to the physical environment, including subsurface soils that may contain archeological resources. Thus, the potential of the CSE Update to result in any direct or indirect effect to archeological resources is less than significant.

Impact CP-3: Implementation of the CSE Update would not destroy a unique paleontological resource or site or unique geologic feature. (Less than Significant)

Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. Paleontological resources include vertebrate, invertebrate, and plant fossils or the trace or imprint of such fossils. The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years. Fossils are considered nonrenewable resources because the organisms from which they derive no longer exist. Thus, once destroyed, a

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[8] By the term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

[9] An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America.

[10] See "Significance of archeological resources" in the "Regulatory Context" above.

fossil can never be replaced. Ground-disturbing activities associated with park maintenance, streetscape improvements, or construction of recreational facilities that could be implemented in the future could potentially damage or destroy paleontological resources that may be present below ground surface. As with archeological resources, paleontological resources are generally considered to be historical resources, as defined in Section 15064.5(a)(3)(D). Any implementation projects resulting from the CSE Update will be subject to project-specific environmental review, including preliminary archeology and geological review by the Environmental Planning division staff, to evaluate the potential of the project to affect legally significant archeological resources. Thus, implementation of the CSE Update would result in a less than significant effect on paleontological resources.

Impact CP-4: The policies and objectives in the CSE Update would not impact to human remains. (Less than Significant)

Impacts on Native American burials are considered under Public Resources Code (PRC) Section 15064.5(d)(1). When an Initial Study identifies the existence of, or the probable likelihood of, Native American human remains within a project site, the CEQA lead agency is required to work with the appropriate tribal entity, as identified by the California Native American Heritage Commission (NAHC). The lead agency may develop an agreement with the appropriate tribal entity for testing or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials. By implementing such an agreement, the project becomes exempt from the general prohibition on disinterring, disturbing, or removing human remains from any location other than the dedicated cemetery (Health and Safety Code Section 7050.5) and the requirements of CEQA pertaining to Native American human remains.

Subsequent projects that may be implemented in the context of the CSE would be required to comply with applicable state laws, including immediate notification of the City and County of San Francisco (CCSF) Coroner should human remains and associated or unassociated funerary objects be discovered during any soils-disturbing activities. If the Coroner were to determine that the remains are Native American, the NAHC would be notified and would appoint a Most Likely Descendant (PRC Section 5097.98). Because implementation of the CSE Update does not include any specific projects, it would not directly disturb Native American burials or any human remains, and would therefore have no significant impact on human remains.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
5. TRANSPORTATION AND CIRCULATION— Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐	☐

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	☐
c)	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?	☐	☐	☐	☒	☐
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	☐	☐	☒	☐	☐
e)	Result in inadequate emergency access?	☐	☐	☒	☐	☐
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐	☐

Below is a list of significance criteria used by the San Francisco Planning Department to assess whether a proposed project would result in significant impacts to the transportation network. These criteria are organized by transportation mode to facilitate the transportation impact analysis; however, the transportation significance thresholds are essentially the same as the ones presented above in the checklist.

- The operational impact on signalized intersections is considered significant when project-related traffic causes the intersection level of service (LOS) to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The project may result in significant adverse impacts at intersections that operate at LOS E or F under existing conditions depending upon the magnitude of the project's contribution to the worsening of the average delay per vehicle. In addition, the project would have a significant adverse impact if it would cause major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.
- The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the peak hour.
- The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.

- The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.
- A project would have a significant effect on the environment if it would result in a loading demand during the peak hour of loading activities that could not be accommodated within proposed on-site loading facilities or within convenient on-street loading zones, and created potentially hazardous conditions or significant delays affecting traffic, transit, bicycles or pedestrians.
- The project would have a significant effect on the environment if it would result in inadequate emergency access.
- Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

Approach to Analysis

This section addresses the potential transportation effects related to implementation of the CSE Update. The CSE Update consists of objectives and policies related to facilitating community resilience and reducing future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters.

The CSE, as a policy document, does not include specific projects, and as such would not generate new person trips. Therefore, the analysis of this policy document focuses on how the general goals and objectives of the CSE Update correspond with other City and General Plan transportation policies related to traffic, transit, pedestrian, bicycle and emergency vehicle access. The policy analysis therefore, does not include level of service (LOS), transit demand, etc. analyses that would be typical for a development project that would generate person trips. Similarly, since no specific projects are included, an analysis of construction-related transportation effects is not required. As a policy document, the CSE update would not alter or affect air traffic patterns.

Transportation Setting

Existing Roadway Network

The Transportation Element of the General Plan classifies roadways by type within the City ranging form Freeways, Major and Secondary Arterials to Collector and Local Streets. The General Plan further identifies Primary Transit, Transit Preferential Streets and Citywide or Neighborhood Pedestrian Network Streets.

Transit Network

Local transit service throughout the City is provided by Muni, the transit division of the San Francisco Municipal Transportation Authority (SFMTA). Muni operates a fleet of buses, cable cars and light rail routes throughout the City providing both local service and connections to regional transit providers serving the North Bay, East Bay, South Bay and the Peninsula. Golden Gate Transit buses and ferries provide service to the North Bay; Bay Area Rapid Transit (BART), the Water Emergency Transportation Authority (WETA) and Alameda-Contra Costa Transit (AC

Transit) District to the East Bay; and Caltrain and San Mateo County Transit District (SamTrans) to the South Bay and Peninsula. Muni routes operate seven days a week, primarily between 6 a.m. to midnight; schedules vary route-by-route, with some late night (Owl) service. Service frequencies range from three to 30 minutes depending on time of day and route, with the most frequent service provided during the weekday AM peak period (7 – 9 a.m.) and PM peak period (6 – 9 p.m.). Typical peak capacities for transit operations occur during the weekdays, in the inbound (to Downtown) direction in the mornings and in the outbound (away from downtown) in the evenings.

Bicycle Facilities

As indicated in the Transportation Element of the General Plan and the San Francisco Bicycle Plan, the City has a series of designated bike routes and facilities including Class I (separated bike paths), Class II (bike lanes), and Class III (signed but shared streets) facilities, which interconnect neighborhoods, attractions, and commute destinations throughout the City.

Pedestrian Facilities

Sidewalks are provided on most city streets on both sides, and are wider (up to 30 feet) on major pedestrian corridors (such as The Embarcadero). Most of the intersections with major pedestrian activity are signalized with pedestrian signals and crosswalks, and the heaviest pedestrian activities tend to occur in or near tourist attractions and in downtown commercial areas. The City has several ongoing programs to enhance pedestrian safety and facilities including investing in 'safe routes' to schools, adding pedestrian amenities such curb bulb-outs and benches and calming traffic where desirable to improve pedestrian conditions.

Loading Facilities

Commercial loading facilities throughout the City are provided for corresponding land uses consistent with Section 152 of the Planning Code. On-street passenger loading throughout the City is designated by white curbs and tends to be located near tourist (e.g., hotel, event) locations and transit facilities (BART stations). Additionally, on- or off-street passenger loading areas may be provided in relation to specific land uses, such as schools.

Parking Conditions

On-street parking conditions throughout the City vary depending on location, from on-street metered parking to unlimited (except for street-sweeping maintenance hours) on-street parking. Similarly the availability of off-street parking, both private and public, vary by location with more facilities being provided in the Downtown or adjacent areas than other areas of the City, where on-street parking is more readily available.

Key Transportation Policies and Regulations

The following is a summary of City policies and regulations related to transportation that were considered in the analysis of the CSE Update objectives and policies.

San Francisco Countywide Transportation Plan

The San Francisco County Transportation Authority is the designated Congestion Management Agency for San Francisco. The SFCTA is responsible for preparing a long-range Countywide Transportation Plan, prioritizing transportation investment and developing and maintaining a computerized travel demand forecasting model and related databases.

San Francisco General Plan
The Transportation Element of the General Plan is composed of several sections including 1) General, 2) Regional Transportation, 3) Congestion Management, 4) Vehicle Circulation, 5) Transit, 6) Pedestrians, 7) Bicycles, 8) Citywide Parking and 9) Goods Movement. Each section consists of objectives and policies regarding a particular segment of the master transportation system.

San Francisco Municipal Code
The San Francisco Transportation, Planning, Police and Building Code of the Municipal Code all contain provisions and regulations for traffic devices, building and facility requirements, operation of vehicles, and vehicle trip reduction.

San Francisco Transit First Policy
The San Francisco City Charter (Section 16.102) includes the Transit First Policy, a set of principles which underscore the City's commitment that travel by transit, bicycle and foot be given priority over the private automobile. These principles are further emphasized in the goals and policies of the General Plan's Transportation Element.

San Francisco Transit Effectiveness Project
The Transit Effectiveness Project (TEP) presents a thorough review of San Francisco's public transit system, initiated by SFMTA in collaboration with the City Controller's Office. The TEP is aimed at improving reliability, reducing travel times, providing more frequent service and updating Muni bus routes and rail lines to better match current travel patterns. The TEP recommendations were unanimously endorsed for purposes of initiating environmental review by the SFMTA Board of Directors in October 2008. They include new routes and route extensions, more service on busy routes, and elimination or consolidation of certain routes or route segments. SFMTA published a TEP Implementation Strategy on April 5, 2011. The TEP Implementation Strategy anticipates that many of the service improvements would be implemented sometime between the end of Fiscal Year (FY) 2013 and FY 2015 and that the remainder of the service improvements would occur in FY 2016.[11]

San Francisco Bicycle Plan
The San Francisco Bicycle Plan includes short-term and long-term planned improvements for bicycle facilities throughout the City and is currently being implemented by SFMTA. Bicycle improvements range from new bike lanes to better bicycle route signage, and are located throughout the City, generally along existing designated bicycle routes.

Better Streets Plan
The Better Streets Plan consists of a set of guidelines to make San Francisco streets more useable, attractive and accessible, to make them safer and more welcoming to pedestrians, to improve their ecological functioning, and to make them a more central point of civic life.

WalkFirst Project
The WalkFirst project is an interdepartmental collaborative project with the goal to identify key walking streets throughout San Francisco and establish criteria to prioritize pedestrian

[11] SFMTA, Draft Transit Effectiveness Project Implementation Strategy, April 5, 2011, page 3-5.

improvements fostering pedestrian safety and walking conditions, encourage walking, and enhance pedestrian connections to key destinations. This project builds on the Better Streets Plan and coordinates with other efforts to improve the City's streets and transportation system.

SFPark
The SFPark Program, implemented by SFMTA, improves parking management of metered spaces through providing dynamic information to drivers and in some locations varies the cost of parking based on demand. The SFPark Program aims to reduce traffic congestion related to drivers searching for available on-street parking spaces.

SFGo
Also implemented by SFMTA, the SFGo program is a citywide traffic management system which enables SFMTA traffic engineers, through monitoring cameras to remotely alter traffic signal controllers in key locations to dynamically adjust intersection signal timing in response to observed congestion or traffic incidents. Engineers also have access to control electronic message boards to alert drivers to upcoming observed conditions. Sometime in the future, the SFGo control center will be combined with Muni Central Control, so that transit operations can better respond to real-time congestion and incidents.

Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT)
ISCOTT is a city staff committee that reviews applications for temporary street closures for special events, including street fairs, athletic events, and neighborhood block parties, at a meeting open to the public. ISCOTT is composed of representatives of several agencies including SFMTA, including Muni Operations Division, Public Works, Police, Fire, Public Health, and the Port of San Francisco.

Impact TR-1: The CSE Update would not result in significant impacts related to traffic conditions or conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, or with an applicable congestion management program. (Less than Significant)

The CSE Update objectives and policies would not generate new person trips, including vehicle trips, and as such would not result in impacts to traffic conditions, operations or hazards. The CSE Update is a regulatory program, and its adoption would update the existing CSE, through amended, and in some cases, new objectives and policies. No direct person trip generation is associated with adopting these policies. As discussed in Population and Housing of this Initial Study, increases in residents and employment are projected to occur in San Francisco over a planning horizon of the next 20 years with or without implementation of the CSE Update.

The purpose of the CSE Update is to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters, and thus these objectives and policies would not substantially or adversely affect traffic conditions in the City. In addition, the CSE Update would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, or with an applicable congestion management system.

Policy 4.7 of the CSE Update calls for the City to "Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies." The recovery and reconstruction plan will need to prepare the City to meet immediate changing needs after a disaster. The damage may warrant reconsideration of large-scale issues such as transit and public infrastructure such as streets. The recovery and reconstruction plan should build upon established General Plan objectives and policies, and be consistent with already established City programs, policies, and regulations. The recovery and reconstruction plan may also consider potential changes to the City's physical framework and development pattern, potentially reviewing issues such as re-examination of street patterns, street design, and standards such as required width, etc. and recommendations for changes and improvements to major transportation routes, transit networks and other lifelines.

Any specific project implementation or program would be subject to project-level environmental review. Therefore, the objectives and policies of the CSE Update would not conflict with the General Plan's Transportation Element and would not significantly impact traffic conditions in the City. Thus, implementation of the CSE Update policies would have a less-than-significant impact on traffic, individually and cumulatively.

Impact TR-2: The CSE Update would not result in significant impacts related to transit demand or transit operation or substantially conflict with adopted policies, plans or programs regarding public transit, or otherwise decrease transit performance or safety. (Less than Significant)

As discussed above, the CSE Update objectives and policies would not generate new person trips, including transit trips, and as such would not result in impacts to transit demand or substantially alter transit operations. Generally the City is well-served by transit with one or more transit routes within walking distance. The CSE update objectives and polices would not conflict with the City's Transit First Policy, and as policies, would not substantially or adversely affect transit conditions in the City. As such, the objectives and policies of the CSE Update would be consistent with City's Transportation Element, planned TEP service improvements and 'Transit First' transportation policies to encourage alternate modes of travel including transit. The CSE Update policies would not substantially or adversely affect transit conditions in the City.

Impact TR-3: The CSE Update would not result in significant impacts related to bicycles or bicycle facilities or substantially conflict with adopted policies, plans or programs regarding bicycle facilities or otherwise decrease the performance or safety of such features. (Less than Significant)

As discussed above, the CSE Update objectives and policies would not directly generate new person trips and as such would not result in impacts to bicycle facilities. In addition, the CSE Update does not include any objectives and policies that pertain to bicycles or bicycle facilities, and any specific project implementation or program would be subject to project-level review. The objectives and policies of the CSE Update would neither create potentially hazardous conditions for bicyclists nor otherwise substantially interfere with bicycle accessibility to parks or adjoining areas. The CSE Update would therefore not conflict with City's Transportation Element and

transportation policies to encourage alternate modes of travel including bicycles, and would not significantly impact bicycle conditions in the City.

Impact TR-4: The CSE Update would not result in significant adverse effects related to pedestrians or pedestrian facilities or substantially conflict with adopted policies, plans or programs regarding pedestrian facilities or otherwise decrease the performance or safety of such features. (Less than Significant)

As discussed above, the CSE update objectives and policies would not generate new person trips, including pedestrian trips, and as such would not result in impacts to pedestrian facilities. The objectives and policies of the CSE Update would not be expected to result in substantial overcrowding on public sidewalks or to create potentially hazardous conditions for pedestrians. The CSE Update would not conflict with City's Transportation Element and policies to encourage alternate modes of travel including pedestrian travel, and as policies would not significantly impact pedestrian conditions, individually or cumulatively.

Impact TR-5: The policies and objectives in the CSE Update would not result in loading conflicts. (No Impact)

The CSE Update does not include any objectives and policies that pertain to loading, and any specific project implementation would be subject to separate project-level environmental review that would evaluate the potential for conflicts associated with on- or off-street loading. The CSE Update contains no policies related to loading, and its implementation would not be expected to create potentially hazardous conditions or significant delays affecting traffic, transit, bicycles or pedestrians.

Impact TR-6: The policies and objectives in the CSE Update would not substantially increase hazards due to a design feature or incompatible uses. (Less than Significant)

As a policy document, no specific projects are proposed at this time. Future projects in the context of the CSE Update would be subject to separate, independent study and environmental review that would evaluate the potential for conflicts associated with design features or incompatible uses. The CSE Update does not include any policies that would result in design features that would substantially increase hazards (e.g., creating a new sharp curve or dangerous intersections), and would not include any incompatible uses. Therefore, this impact would be less than significant.

Impact TR-7: The policies and objectives in the CSE Update would not result inadequate emergency access. (Less than Significant)

The objectives and policies of the CSE Update would serve to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters, and as such would not affect existing emergency access. Although some policies and objectives would encourage the reduction of private vehicle use, in some cases through the reduction of non-essential roadways or in exploring further temporary or permanent changes to public rights-of-way, any such resulting

recommendations which would alter vehicle access, including emergency access, would, similar to existing programs, be required to prioritize and provide emergency access where needed.

An earthquake or other disaster can have a major impact on transit and regional roadways of the City. To address this concern, Policy 4.21 of the CSE Update calls for the City to "Have an economic recovery plan in place before the disaster strikes." This plan would ensure an economic recovery plan is in place to foster business resumption, and even growth, after a disaster. The economic recovery plan would prioritize the elements of the City necessary to support business activity, such as the restoration of transit and regional roadways.

Any specific project implementation or program would be subject to project-level review, including the examination of any alteration of vehicle access as part of ISCOTT review, environmental review or both. As such, the CSE Update objectives and policies and elements of the implementation plan would not result in inadequate emergency access.

Parking Conditions

Changes in parking conditions are considered to be social impacts rather than impacts on the physical environment. Accordingly, the following parking discussion is presented for informational purposes only.

San Francisco does not consider parking supply as part of the permanent physical environment and therefore, does not consider changes in parking conditions to be environmental impacts as defined by CEQA. The San Francisco Planning Department acknowledges, however, that parking conditions may be of interest to the public and the decision makers. Therefore, this report presents a parking analysis for information purposes.

Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel.

Parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project's social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that could be triggered by a social impact (CEQA Guidelines § 15131(a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service in particular, would be in keeping with the City's "Transit First" policy. The City's Transit First Policy, established in the City's Charter Article 8A, Section 8A.115.

provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The CSE Update does not include any objectives and policies that pertain to parking, and therefore the CSE Update objectives and policies would not substantially affect existing parking conditions throughout the City and would be consistent with the City's Transit First Policy.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
6. NOISE—Would the project:					
a) Result in 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) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐
d) Result in 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 area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☐	☒
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐	☒
g) Be substantially affected by existing noise levels?	☐	☐	☒	☐	☐

The City's structures and non-structures covered by the Community Safety Element are not within an airport land use plan area in the vicinity of private airstrips. Therefore, topics 6e and 6f are not applicable.

Impact NO-1: Policies in the CSE Update would not expose persons to noise levels in excess of standards established in the General Plan or noise ordinance; nor would the CSE Update be substantially affected by existing noise. (Less than Significant)

Noise in San Francisco is regulated by the following state and local statutes:

- **Construction Noise**: Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the Police Code), amended in November 2008. The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not

exceed 80 dBA[12] at a distance of 100 feet from the source. Impact tools (jackhammers, hoerammers, impact wrenches) must have both intake and exhaust mufflers as well as be equipped with acoustically attenuating shields or shrouds to the satisfaction of the Director of Public Works or the Director of Building Inspection. Section 2908 of the Ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m., if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Director of Public Works or the Director of Building Inspection.

- **Fixed Sources:** The Noise Ordinance limits noise from sources defined as "any machine or device, music or entertainment or any combination of same" located on residential or commercial/industrial property to 5 dBA or 8 dBA, respectively, above the local "ambient"[13] at any point outside of the property plane of a residential, commercial/industrial or public land use, respectively, containing the noise source. An additional low-frequency criterion applies to noise generated from a licensed Place of Entertainment, specifically that no associated noise or music shall exceed the low-frequency ambient noise level by more than 8 dBA. The Noise Ordinance limits noise from a "fixed source"[14] from causing the noise level measured inside any sleeping or living room in any dwelling unit located on residential property to 45 dBA between the hours of 10:00 p.m. to 7:00 a.m. or 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. with windows open except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

- **Noise Insulation:** California's Building Standards Code (Title 24 of the California Code of Regulations, which at the local level is enforced by the Department of Building Inspection) establishes energy efficiency standards for residential and non-residential buildings. Title 24 also contains noise insulation standards that require new multi-unit and hotel/motel structures to meet an interior noise level not exceeding 45 dBA (Ldn) in any habitable room and, where such units are proposed in areas subject to outdoor noise levels in excess of than 60 dBA (Ldn), acoustical studies must be conducted that demonstrate that the design of the building will reduce interior noise to 45 dBA (Ldn) or less. If compliance with the required interior noise levels would only occur with windows closed, an alternative means of ventilation must be provided.

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12 Sound pressure is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 dB to 140 dB corresponding to the threshold of pain. Because sound pressure can vary by over one trillion times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. Owing to the variation in sensitivity of the human ear to various frequencies, sound is "weighted" to emphasize frequencies to which the ear is more sensitive, via a method known as A-weighting and expressed in units of A-weighted decibels (dBA).

13 By definition, Noise Ordinance Section 2901(a) states "ambient" means the lowest sound level repeating itself during a minimum ten-minute period as measured with a type 1, precision sound level meter, set on slow response and A-weighting ... in no case shall the ambient be considered or determined to be (1) less than 35 dBA for interior residential noise, and (2) 45 dBA in all other locations."

14 Noise Ordinance Section 2901(e) states "fixed source" means a machine or device capable of creating a noise level at the property upon which it is regularly located, including but not limited to: industrial and commercial process machinery and equipment, pumps, fans, air conditioning apparatus or refrigeration machines.

- **Land Use Compatibility**: The San Francisco General Plan, which contains Land Use Compatibility Guidelines for Community Noise in its Environmental Protection Element.[15] These guidelines, which are similar to state guidelines promulgated by the Governor's Office of Planning and Research, indicate maximum acceptable noise levels for various newly developed land uses.[16]

Ambient noise levels in the City are dominated by vehicular traffic, including trucks, cars, Muni buses, emergency vehicles, and land use activities, such as commercial businesses and periodic temporary construction-related noise from nearby development, or street maintenance. Noises generated by residential and commercial uses are common and generally accepted in urban areas.

As a policy document, the CSE Update does not include specific projects. The policies in the CSE Update would not directly increase ambient noise levels, or result in construction noise effects. Future construction work in the context of the CSE Update would be subject to the above regulations and local statutes, and would be reviewed based on the specifics of the land use program or proposal for their potential to cause adverse noise effects. In addition, implementation of the CSE Update would not be substantially affected by existing noise. As such, the CSE Update would have a less than significant impact on noise at both the individual and cumulative level.

Impact NO-2: Implementation of the CSE Update would not result in exposure of persons to generation of excessive groundborne vibration or groundborne noise levels. (Less than Significant)

The implementation of the CSE does not include the construction of buildings or facilities. Construction activities of future projects that could be developed in the context of the CSE could require the use of heavy equipment for grading and excavation that may result in groundborne vibration effects. However, because no construction improvements are proposed at this time, specific construction details associated with possible projects, including phasing, duration and types of construction equipment are not known. Future projects would be subject to separate, independent study and environmental review. Compliance with the Noise Ordinance is required by law and would serve to avoid significant negative impacts on sensitive receptors such as residential uses. Therefore, vibration impacts associated with the proposed CSE Update would be less than significant, both individually and cumulatively.

Impact NO-3: Implementation of the CSE Update is not expected to cause a substantial permanent increase in ambient noise levels. (Less than Significant)

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15 *San Francisco General Plan, Environmental Protection Element, Policy 11.1*,.San Francisco Planning Department,, *June 30, 2007, Figure 19 – Land Use Compatibility Chart for Community Noise.* Accessible on-line at *http://www.sf-planning.org/ftp/general_plan/I6_Environmental_Protection.htm.* Available for public review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco.

16 The residential guidelines are based on maintaining an interior noise level of 45 dBA, Ldn, as required by the California Noise Insulation Standards in Title 24, Part 2 of the California Code of Regulations.

The General Plan's Environmental Protection Element includes the following objectives and policies related to noise: "Promote site planning, building orientation and design and interior layout that will lessen noise intrusion." (Policy 10.1); "Promote land uses that are compatible with various transportation noise levels." (Objective 11); and "Locate new noise-generating development so that the noise impact is reduced."(Policy 11.3).

In most of San Francisco, traffic makes the greatest contribution to ambient noise levels. The CSE Update would not directly generate person trips and would not be expected to increase vehicle trips as no development is proposed. It should be noted that no potential noise impacts associated with implementing the CSE Update are identified here, and as such, no mitigation measures are required.

The CSE Update's policies would not conflict with the policies in the General Plan's Environmental Protection Element that pertain to noise. Scientific studies indicate that an approximate doubling of traffic volumes would be necessary to produce an increase in ambient noise levels noticeable to most people.[17] Implementation of the CSE Update would not directly generate person trips and thus would not cause traffic volumes to double. Therefore, the CSE Update would have a less than significant effect on ambient noise levels, individually and cumulatively.

Impact NO-4: Implementation of the CSE Update would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels that would occur without the proposed CSE Update. (Less than Significant)

Construction noise is regulated by the San Francisco Noise Ordinance (Article 29 of the Police Code), amended in November 2008. The ordinance requires that noise levels from individual pieces of construction equipment, other than impact tools, not exceed 80 dBA at a distance of 100 feet from the source. Impact tools must have both intake and exhaust muffled to the satisfaction of the Director of Public Works. Section 2908 of the Ordinance prohibits construction work between 8:00 p.m. and 7:00 a.m. if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the Director of Public Works.

Construction activities other than pile driving typically generate noise levels no greater than 90 dBA at 50 feet from the activity, while other activities, such as concrete work, are much less noisy. Closed windows typically can reduce daytime interior noise levels to an acceptable level. Although construction noise could be annoying at times, it would not be expected to exceed noise levels commonly experienced in an urban environment, and would not be considered significant.

The CSE Update is a policy document that consists of general objectives and policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. The CSE Update does not include any specific projects at this time. Any future projects in the context of the CSE Update would require separate project-level environmental review and would require compliance with the Noise Ordinance. Therefore, the CSE Update would have a less than

[17] *San Francisco Better Streets Plan Mitigated Negative Declaration*, p. 111. Available for review at the Planning Department, 1650 Mission Street, Suite 400 in Case File No. 2007.1238E.

significant impact with respect to a substantial temporary or periodic increase in ambient noise levels.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
7. AIR QUALITY—Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☐	☒

The CSE Update's policies and objectives would apply citywide within San Francisco, which is also within the San Francisco Bay Area Air Basin (SFBAAB). The SFBAAB also encompasses Alameda, Contra Costa, Marin, Napa, San Mateo, and Santa Clara Counties, the southern half of Sonoma County, and the southwestern portion of Solano County.

The federal Environmental Protection Agency (EPA) is responsible for establishing and enforcing National Ambient Air Quality Standards and requires states with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP), which provides the measures adopted to comply with the federal EPA standards. At the state level, the California Air Resources Board (CARB) establishes ambient air quality standards and policies for emissions controls and standards and is responsible for preparing the SIP.

At the regional level, the Bay Area Air Quality Management District (BAAQMD) is responsible for maintaining air quality standards in the SFBAAB, as well as developing and maintaining standards for attaining air quality levels, in compliance with federal and state laws and regulations, including the federal Clean Air Act.[18] The BAAQMD has implemented ozone attainment plans and clean air plans to establish emission control measures to reduce ozone, particulate matter (PM), toxics and greenhouse gas emissions and to set targeted dates for compliance with these measures.

To establish compliance with all CEQA provisions and guidelines, BAAQMD has adopted the *CEQA Air Quality Guidelines*, most recently on June 17, 2010.[19] These guidelines establish

18 State and Federal air quality standards for the Bay Area's attainment status is available at the BAAQMD website atwww.baaqmd.gov, accessed August 2, 2011.

19 BAAQMD, California Environmental Quality Act Air Quality Guidelines, June 2010 (*BAAQMD 2010 Guidelines*). This document is available online at www.baaqmd.gov, accessed August 2, 2011.

thresholds of significance and provide procedures for evaluating criteria air pollutants, greenhouse gas (GHG) emissions, and health risks from new sources of emissions consistent with CEQA requirements.

Impact AQ-1: Implementation of the CSE Update would not conflict with or obstruct implementation of an applicable air quality plan. (Less than Significant)

On September 15, 2010, the BAAQMD adopted the 2010 Bay Area Clean Air Plan.[20] The *2010 Clean Air Plan* updates the *Bay Area 2005 Ozone Strategy* in accordance with the requirements of the CCAA to implement all feasible measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and GHGs in a single, integrated plan; and establish emission control measures to be adopted or implemented in the 2010 through 2012 timeframe. The primary goals of the 2010 Clean Air Plan are to

- attain air quality standards;
- reduce population exposure and protecting public health in the San Francisco Bay Area; and,
- reduce GHG emissions and protect the climate.

BAAQMD's approach for determining plan-level consistency with these goals is determined by considering 1) the primary goals of the 2010 Clean Air Plan, 2) the consistency with the 55 control measures listed in the 2010 Clean Air Plan and 3) whether the project in question would hinder implementation of the 2010 Clean Air Plan.

The San Francisco General Plan includes an Air Quality Element that includes policies to reduce the level of air pollutants and to improve the public health and quality of life of the people of San Francisco. These policies are as follows:

- Adhere to state and federal ambient air quality standards and programs and reduce mobile sources of air pollution through implementation of the transportation element of the General Plan;
- Decrease the air quality impacts of development by coordinating land use and transportation decisions;
- Improve air quality by increasing public awareness of the negative health effects of pollutants generated by stationary and mobile sources;
- Minimize particulate matter emissions from road and construction sites; and
- Link the positive effects of energy conservation and waste management to maintain reductions.

The CSE Update's proposed objectives and policies would not conflict with the primary goals of the 2010 Clean Air Plan, existing Air Quality Element's goals or other policies in the General Plan's other elements.

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[20] BAAQMD, Bay Area 2010 Clean Air Plan, Adopted September 15, 2010. Available online at: *http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx*. Accessed April 22, 2012

The BAAQMD CEQA Guidelines state: "Plans are the appropriate place to establish community-wide air quality policies that reinforce regional air quality plans. Plans present opportunities to establish requirements for new construction, future development, and redevelopment projects within a community that will ensure new or revised plans do not inhibit attainment of state and national air quality standards and actually assist in improving local and regional air quality." This analysis focuses on the BAAQMD's measures that are applicable to new or modified CSE policies – some measures, like those related to activity centers, parking, solid waste, community forestry, etc. do not relate to community safety planning and are not included in the consistency analysis. Table 4 lists BAAQMD measures that correlate to CSE Update policies.

Table 4: Feasible Measures to Reduce Air Quality Effects and CSE Update Policies

Subject Area	BAAQMD Recommended Measures	Corresponding CSE Update Policy
Urban Form	Provide adaptive re-use alternatives to demolition of historic buildings. Provide incentives to prevent demolition of historic buildings.	Policy 1.16: Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.
Sustainable Development	Ensure new construction complies with California Green Building Code Standards and local green building ordinances.	Policy 4.15: Utilize green building practices in rebuilding.
Water Conservation	Minimize impervious surfaces and associated urban runoff pollutants in new development and reuse projects	Policy 1.11: Continue to promote green stormwater management techniques.
Municipal Operations	Require that all new government buildings, and all major renovations and additions, meet identified green building standards.	Policy 4.15: Utilize green building practices in rebuilding.
Transit-oriented Design	Develop transit/pedestrian-oriented design guidelines. Identify and designate appropriate sites during general plan updates and amendments.	Policy 2.12: Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.
Regional Rail Transit	Support regional rail service and consult with rail operators to expand services.	Policy 2.12: Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.

The CSE Update and its implementing measures would not cause the disruption, delay or otherwise hinder the implementation of the 2010 Clean Air Plan. The CSE Update would be, on balance, consistent with applicable BAAQMD control measures. In terms of GHG emissions, the City and County has adopted an ordinance which implements citywide "Strategies to Reduce Greenhouse Gas Emissions." As discussed further under topic E.8, Greenhouse Gas Emissions, the CSE would not conflict with the CAP's overarching goal to "reduce GHG emissions and protect the climate." As such, the CSE Update would not conflict with or obstruct implementation of the 2010 Clean Air Plan.

Impact AQ-2: Implementation of the CSE Update would not violate an air quality standard or contribute to an existing or projected air quality violation. (Less than Significant)

The BAAQMD CEQA Guidelines require that a plan demonstrate that it's projected vehicle miles traveled (VMT) or vehicle trips increase is less than or equal to its projected population increase. The 2010 Clean Air Plan growth assumptions for Bay Area communities are based on the Association of Bay Area Government's regional projections for population, housing and economic activity. For purposes of this analysis, the Planning Department uses background growth projections cited in the recently-adopted *San Francisco 2004 and 2009 Housing Element* Final EIR because no direct population or job growth or is anticipated to due implementation of the CSE Update.

The ABAG Projections forecasts, on which the 2010 CAP is based, assume a citywide population growth rate of 10.6 percent between 2010 and 2025, the horizon year for the cumulative analysis of the Housing Element EIR. Based on citywide projections, VMT is anticipated to increase by 8.4 percent during the same timeframe. Thus, VMT would increase at a lower rate than the rate of population growth assumed for the same period. Moreover, the CSE Update is not expected to contribute to the projected increase in VMT because the CSE Update, as a policy document, does not include specific projects. As a regulatory program, the CSE Update would also not expected to directly generate person trips or not directly contribute to substantial population growth. Therefore, the CSE Update would not contribute, in a considerable manner, to projected increases in VMTs, and thus would not violate an air quality standard.

Impact AQ-3: Implementation of the CSE Update would not result in a cumulatively considerable net increase in criteria air pollutants or otherwise conflict with regional air quality plans. (Less than Significant)

With respect to cumulative criteria air pollutant impacts, BAAQMD's approach to cumulative air quality analysis is that any proposed project that would exceed the criteria air pollutant thresholds of significance would also be considered to result in a cumulatively considerable increase in criteria air pollutants. Implementation of the CSE Update would result in less than significant impacts related to construction and operational criteria air pollutant emissions. Therefore, the CSE Update's contribution to cumulative criteria air pollutant impacts is less than significant, and implementation of the CSE Update would not conflict with any regional air quality plan.

Impact AQ-4: Implementation of the CSE Update would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant)

Particulate matter (referred to as PM) consists of very small liquid and solid particles suspended in the air, and includes particles smaller than 10 microns in diameter (PM_{10}) as well as finer particles smaller than 2.5 microns in diameter ($PM_{2.5}$). Particles with a diameter between 2.5 and 10 microns are sometimes referred to as "coarse particles." Ambient PM is made up of particles that are emitted directly, such as soot and fugitive dust, as well as secondary particles that are formed in the atmosphere from reactions involving precursor pollutants such as oxides of nitrogen, sulfur oxides, volatile organic compounds, (NOx, SOx, and VOC), and ammonia. Secondary PM and combustion soot tend to be fine particles (PM 2.5), whereas fugitive dust is mostly coarse particles.

California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where

possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the CARB, reducing ambient particulate matter from 1998–2000 levels to natural background concentrations in San Francisco would prevent over 200 premature deaths. For fugitive dust emissions, the 2010 Air Quality Guidelines recommend following the current best management practices, which has been a pragmatic and effective approach to the control of fugitive dust emissions. The Air Quality Guidelines note that individual measures have been shown to reduce fugitive dust by anywhere from 30 percent to more than 90 percent and conclude that projects that implement BAAQMD's recommended construction best management practices will reduce fugitive dust emissions to a less-than-significant level.[21]

The San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred hereto as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of on-site workers, minimize public nuisance complaints, and to avoid orders to stop work by the Department of Building Inspection (DBI). While the implementation of the CSE Update would not directly expose sensitive receptors to particulate matter, subsequent projects in the context of the CSE could entail construction or other ground-disturbing activities that may generate fugitive dust. Such projects would be required to adhere to the provisions in the City's Construction Dust Control Ordinance.

In addition to existing measures and practices to regulate fugitive dust, the Planning Department screens projects for their potential to generate or expose sensitive receptors to toxic air contaminants (TACs). The BAAQMD defines TACs as a "set of airborne pollutants that may pose a potential hazard to human health. Sources of TACs include industrial and mobile sources and similar to PM2.5, can be emitted directly to the atmosphere or through reactions with different pollutants."[22] CARB has identified over 244 TACs, including diesel particulate matter (DPM) and total organic gasses (e.g., Benzene; 1,3 Butadiene and others). Examples of new sources of TAC emissions include gasoline dispensing facilities (i.e., gasoline stations), dry cleaners, and autobody shops. Less obvious sources of TAC include diesel backup generators that are housed in the basement of hospitals, governmental agencies, and fire stations, in case of power outages. Examples of projects that may be impacted from existing nearby TAC sources such as roadways, stationary sources, railyards, airports, and ports include residential developments, mixed use commercial-residential developments, commercial buildings, and daycare centers.

The Planning Department screens individual projects to determine whether siting or exposure of receptors to TACs would be significant based on the criteria established by the BAAQMD. This screening and possibly detailed modeling would be required for specific projects that may be developed in parks or open spaces. As previously discussed, the CSE Update is a regulatory program, and its implementation would not conflict with the Clean Air Plan or other regional regulations aimed at reducing adverse air quality effects. As such, the CSE Update is not expected to expose sensitive receptors to substantial pollutant concentrations and therefore the CSE Update would result in a less than significant impact on sensitive receptors.

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[21] *Ibid*, Section 4.2.1.

[22] *Recommended Methods for Screening and Modeling Local Risks and Hazards*, BAAQMD, available for review online at: *http://www.baaqmd.gov*, accessed August 17, 2011. Note sensitive receptors are defined by the BAAQME as "people – children, adults and seniors, occupying or residing in residential dwellings including apartments, houses condominiums; schools, colleges, universities; daycares; hospitals; and senior-care facilities."

Impact AQ-5: Implementation of the CSE Update would not create objectionable odors affecting a substantial number of people. (Not Applicable)

The CSE Update, which includes objectives and policies directed toward community safety, would not create objectionable odors affecting a substantial number of people. Therefore, this topic is not applicable.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
8. **GREENHOUSE GAS EMISSIONS— Would the project:**					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	☐

Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHG's has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor.

While the presence of the primary GHGs in the atmosphere are naturally occurring, carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth's atmosphere. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes. Greenhouse gases are typically reported in "carbon dioxide-equivalent" measures (CO2E).[23]

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, greater and more extensive forest fires, and more drought years.

[23] Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in "carbon dioxide-equivalents," which present a weighted average based on each gas's heat absorption (or "global warming") potential.

Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.[24]

The Air Resources Board (ARB) estimated that in 2006 California produced about 484 million gross metric tons of CO2E (MMTCO2E), or about 535 million U.S. tons.[25] The ARB found that transportation is the source of 38 percent of the State's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 22 percent and industrial sources at 20 percent. Commercial and residential fuel use (primarily for heating) accounted for 9 percent of GHG emissions.[26] In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) and the industrial and commercial sectors are the two largest sources of GHG emissions, each accounting for approximately 36 percent of the Bay Area's 95.8 MMTCO2E emitted in 2007.[27] Electricity generation accounts for approximately 16 percent of the Bay Area's GHG emissions followed by residential fuel usage at 7 percent, off-road equipment at 3 percent and agriculture at 1 percent.[28]

Regulatory Setting

In 2006, the California legislature passed Assembly Bill No. 32 (California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires ARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions).

Pursuant to AB 32, ARB adopted a Scoping Plan in December 2008, outlining measures to meet the 2020 GHG reduction limits. In order to meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels, or about 15 percent from today's levels.[29] The Scoping Plan estimates a reduction of 174 million metric tons of CO2E (MMTCO2E) (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and high global warming potential sectors, see Table 6 (following page). ARB has identified an implementation timeline for the GHG reduction strategies in the Scoping Plan.[30] Some measures may require new legislation to implement, some will require subsidies, some have already been developed, and some will require additional effort to evaluate and quantify. Additionally, some emissions reductions strategies may require their own environmental review under CEQA or the National Environmental Policy Act (NEPA).

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24 California Climate Change Portal. Frequently Asked Questions About Global Climate Change. Available online at: *http://www.climatechange.ca.gov/publications/faqs.html*. Accessed November 8, 2010.

25 California Air Resources Board (ARB), "California Greenhouse Gas Inventory for 2000-2006— by Category as Defined in the Scoping Plan." *http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_2009-03-13.pdf*. Accessed March 2, 2010.

26 Ibid.

27 Bay Area Air Quality Management District, Source Inventory of Bay Area Greenhouse Gas Emissions: Base Year 2007, Updated: February 2010. Available online at: *http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Emission%20Inventory/regionalinventory2007_2_10.ashx*. Accessed March 2, 2010.

28 Ibid.

29 California Air Resources Board, California's Climate Plan: Fact Sheet. Available online at: http://www.arb.ca.gov. Accessed March 4, 2010.

30 California Air Resources Board, *AB 32 Scoping Plan*, available Online at: http://www.arb.ca.gov Accessed March 2, 2010.

AB 32 also anticipates that local government actions will result in reduced GHG emissions. ARB has identified a GHG reduction target of 15 percent from current levels for local governments themselves and notes that successful implementation of the plan relies on local governments' land use planning and urban growth decisions because local governments have primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions.

The Scoping Plan relies on the requirements of Senate Bill 375 (SB 375) to implement the carbon emission reductions anticipated from land use decisions. SB 375 was enacted to align local land use and transportation planning to further achieve the State's GHG reduction goals. SB 375 requires regional transportation plans, developed by Metropolitan Planning Organizations (MPOs), to incorporate a "sustainable communities strategy" in their regional transportation plans (RTPs) that would achieve GHG emission reduction targets set by ARB. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 would be implemented over the next several years and the Metropolitan Transportation Commission's 2013 RTP would be its first plan subject to SB 375.

Senate Bill 97 (SB 97) required the Office of Planning and Research (OPR) to amend the state CEQA guidelines to address the feasible mitigation of GHG emissions or the effects of GHGs. In response, OPR amended the CEQA guidelines to provide guidance for analyzing GHG emissions. Among other changes to the CEQA Guidelines, the amendments add a new section to the CEQA Checklist (CEQA Guidelines Appendix G) to address questions regarding the project's potential to emit GHGs.

Table 5: GHG Reductions from the AB 32 Scoping Plan Sectors[31]

GHG Reduction Measures By Sector	GHG Reductions (MMT CO_2E)
Transportation Sector	62.3
Electricity and Natural Gas	49.7
Industry	1.4
Landfill Methane Control Measure (Discrete Early Action)	1
Forestry	5
High Global Warming Potential GHGs	20.2
Additional Reductions Needed to Achieve the GHG Cap	34.4
Total	**174**
Other Recommended Measures	
Government Operations	1-2
Agriculture- Methane Capture at Large Dairies	1
Methane Capture at Large Dairies	1
Additional GHG Reduction Measures	
Water	4.8
Green Buildings	26
High Recycling/ Zero Waste	
• Commercial Recycling	
• Composting	9
• Anaerobic Digestion	
• Extended Producer Responsibility	
• Environmentally Preferable Purchasing	

31 Ibid.

	Total	42.8-43.8

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine county San Francisco Bay Area Air Basin (SFBAAB). As part of its role in air quality regulation, BAAQMD has prepared the CEQA air quality guidelines to assist lead agencies in evaluating air quality impacts of projects and plans proposed in the SFBAAB. The guidelines provide procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements. On June 2, 2010, the BAAQMD adopted new and revised CEQA air quality thresholds of significance and issued revised guidelines that supersede the 1999 air quality guidelines. The 2010 CEQA Air Quality Guidelines provide for the first time CEQA thresholds of significance for greenhouse gas emissions. OPR's amendments to the CEQA Guidelines as well as BAAQMD's 2010 CEQA Air Quality Guidelines and thresholds of significance have been incorporated into this analysis accordingly.

Impact GG-1: Implementation of the CSE Updates' policies may indirectly generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions. (Less than Significant)

The most common GHGs resulting from human activity are CO2, CH4, and N2O.[32] State law defines GHGs to also include hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These latter GHG compounds are usually emitted in industrial processes, and therefore not applicable to the proposed project. Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions from electricity providers, energy required to pump, treat, and convey water, and emissions associated with landfill operations.

The CSE Update could lead to construction activities associated with Policy 1.13, to "Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks;" Policy 1.14, to "Reduce the earthquake and fire risks posed by older small wood-frame residential buildings;" Policy 1.15, to "Abate structural and non-structural hazards in City-owned structures;" Policy 1.16, to "Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes;" Policy2.8, to "Ensure potable water is available in an emergency;" and Policy 2.12, to "Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster." The CSE

[32] Governor's Office of Planning and Research. *Technical Advisory- CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review.* June 19, 2008. Available at the Office of Planning and Research's website at: *http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf,* accessed March 3, 2010.

Update could therefore contribute to annual long-term increases in GHGs as a result of operations associated with energy use, water use and wastewater treatment, and solid waste disposal. Construction activities of future projects that could be developed in the context of the CSE Update would also result in an increase in GHG emissions.

As discussed above, the BAAQMD has adopted CEQA thresholds of significance for projects that emit GHGs, one of which is a determination of whether the proposed project is consistent with a Qualified Greenhouse Gas Reduction Strategy, as defined in the 2010 CEQA Air Quality Guidelines. On August 12, 2010, the San Francisco Planning Department submitted a draft of the City and County of San Francisco's Strategies to Address Greenhouse Gas Emissions to the BAAQMD.[33] This document presents a comprehensive assessment of policies, programs and ordinances that collectively represent San Francisco's Qualified Greenhouse Gas Reduction Strategy in compliance with the BAAQMD's 2010 CEQA Air Quality Guidelines and thresholds of significance.

San Francisco's GHG reduction strategy identifies a number of mandatory requirements and incentives that have measurably reduced greenhouse gas emissions including, but not limited to, increasing the energy efficiency of new and existing buildings, installation of solar panels on building roofs, implementation of a green building strategy, adoption of a zero waste strategy, a construction and demolition debris recovery ordinance, a solar energy generation subsidy, incorporation of alternative fuel vehicles in the City's transportation fleet (including buses and taxis), and a mandatory composting ordinance. The strategy also identifies 42 specific regulations for new development that would reduce a project's GHG emissions.

San Francisco's climate change goals as are identified in the 2008 Greenhouse Gas Reduction Ordinance as follows:

- By 2008, determine the City's 1990 GHG emissions, the baseline level with reference to which target reductions are set;
- Reduce GHG emissions by 25 percent below 1990 levels by 2017;
- Reduce GHG emissions by 40 percent below 1990 levels by 2025; and
- Reduce GHG emissions by 80 percent below 1990 levels by 2050.

The City's 2017 and 2025 GHG reduction goals are more aggressive than the State's GHG reduction goals as outlined in AB 32, and consistent with the State's long-term (2050) GHG reduction goals. San Francisco's Strategies to Address Greenhouse Gas Emissions identifies the City's actions to pursue cleaner energy, energy conservation, alternative transportation and solid waste policies, and concludes that San Francisco's policies have resulted in a reduction in greenhouse gas emissions below 1990 levels, meeting statewide AB 32 GHG reduction goals. As reported, San Francisco's 1990 GHG emissions were approximately 8.26 million metric tons (MMT) CO2E and 2005 GHG emissions are estimated at 7.82 MMTCO2E, representing an approximately 5.3 percent reduction in GHG emissions below 1990 levels. The BAAQMD reviewed San Francisco's Strategies to Address Greenhouse Gas Emissions and concluded that the strategy meets the criteria for a Qualified GHG Reduction Strategy as outlined in BAAQMD's CEQA Guidelines (2010) and stated that San Francisco's "aggressive GHG reduction targets and

[33] San Francisco Planning Department. *Strategies to Address Greenhouse Gas Emissions in San Francisco.* 2010. The final document is available online at: http://www.sfplanning.org/index.aspx?page=1570.

comprehensive strategies help the Bay Area move toward reaching the State's AB 32 goals, and also serve as a model from which other communities can learn."[34]

Based on the BAAQMD's 2010 CEQA Air Quality Guidelines, projects that are consistent with San Francisco's Strategies to Address Greenhouse Gas Emissions would result in a less than significant impact with respect to GHG emissions. Furthermore, because San Francisco's strategy is consistent with AB 32 goals, projects that are consistent with San Francisco's strategy would also not conflict with the State's plan for reducing GHG emissions. Table 6 illustrates the policies and objectives in the CSE Update and how they relate to the City's GHG Reduction Strategy; existing CSE policies are currently incorporated in the City's current GHG Reduction Strategy.

Table 6: Community Safety Policies that Address Climate Change

General Plan Community Safety Element	Transportation	Energy Efficiency	Renewable Energy	Waste	Environment/ Conservation
POLICY 1.8 Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses.	X	X	X	X	X
POLICY 1.10 Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats.					X
POLICY 1.11 Continue to promote green stormwater management techniques.					X
POLICY 1.16 Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.					X
POLICY 2.12 Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.	X				X
POLICY 2.13 Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.	X				

[34] Letter from Jean Roggenkamp, BAAQMD, to Bill Wycko, Environmental Review Officer, San Francisco Planning Department. October 28, 2010. This letter is available for review at the Planning Department in Case File 2010.0641E.

General Plan Community Safety Element	Transportation	Energy Efficiency	Renewable Energy	Waste	Environment/ Conservation
POLICY 3.11 Ensure historic resources are protected in the aftermath of a disaster.					X
POLICY 4.15 Utilize green building practices in rebuilding.	X	X	X	X	X

The above policies support, and would not conflict with, the City's GHG Reduction Strategy. Given that: (1) San Francisco has implemented regulations to reduce greenhouse gas emissions specific to new construction and renovations of private developments and municipal projects; (2) San Francisco's sustainable policies have resulted in the measured success of reduced greenhouse gas emissions levels; (3) San Francisco has met and exceeded AB 32 greenhouse gas reduction goals for the year 2020; (4) current and probable future state and local greenhouse gas reduction measures will continue to reduce a total greenhouse gas emissions; and (5) San Francisco's Strategies to Address Greenhouse Gas Emissions meet BAAQMD's requirements for a Qualified GHG Reduction Strategy, projects that are consistent with San Francisco regulations would not contribute significantly to global climate change. Because the CSE Update would not conflict with San Francisco's Strategies to Address Greenhouse Gas Emissions, it would have a less-than-significant impact with respect to GHG emissions.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
9. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?	☐	☐	☒	☐	☐
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	☐	☐	☒	☐	☐

Impact WS-1: The CSE Update would not alter wind in a matter that substantially affects public areas. (Less than Significant)

Wind impacts are generally caused by large building masses extending substantially above neighboring buildings, and by buildings oriented such that a new large wall catches a prevailing wind, particularly if such a wall contains little or no articulation. Average wind speeds in San Francisco are greatest in summer and least in the fall. Winds also exhibit a diurnal variation with the strongest winds occurring in the afternoon and the lightest winds occurring in the early morning. Winds in the City occur most frequently from the west to northwest directions,

reflecting the persistence of sea breezes. Wind direction is most variable in the winter.[35] The approach of winter storms often results in southerly winds. Although not as frequent as westerly winds, these southerly winds are often strong. The strongest winds in the City are typically from the south during the approach of a winter storm.

Winds vary at pedestrian levels within a city. In San Francisco wind strength is generally greater, on average, along streets that run east-west as buildings tend to channel westerly winds along these streets.[36] Streets running north-south tend to have lighter winds, on average, due to the shelter offered by buildings on the west side of the street. Within the City, the streets systems north of Market Street and portions of the systems south of Market Street (including those in the Mission District, Potrero Hill, Mission Bay, and Central Waterfront) are mainly on a north/south and east/west grid. However, portions of the street systems south of Market Street (including those in South of Market, South Beach, Bayview Hunters Point, and Visitacion Valley) are mainly northwest/southeast and southwest/northeast, which results in a less predictable pattern of wind variation at the pedestrian level.

New construction could result in wind impacts if future buildings were constructed in a manner that would increase ground-level wind speeds. Typically, new development greater than 85 feet in height could potentially affect ground level wind speeds. Buildings that would result in wind speeds that exceed the hazard criterion of 26 miles per hour (mph) for one hour of the year would result in a significant wind impact.

The Planning Department evaluates potential wind impacts on a project-level basis, and generally evaluates wind effects by using the wind hazard criterion to determine CEQA significance. Any new building or addition that would cause wind speeds to exceed the hazard level of 26-mph-equivalent wind speed (as defined in the Planning Code) more than one hour of any year must be modified and is subject to the relevant wind hazard criterion.[37] Buildings below 85 feet generally do not have the potential to affect wind speeds. Buildings that extend in height above surrounding development have more impact than those of similar height to surroundings. The CSE Update does not include any policy or objective that could in and of itself result in adverse wind effects, and as a policy document, no specific projects are proposed at this time. Therefore, implementation of the CSE Update would result in less-than-significant effects related to wind.

Impact WS-2: The CSE Update would not create new shadow in a manner that could substantially affect outdoor recreation facilities or other public areas. (Less than Significant)

Section 295 of the Planning Code was adopted in response to Proposition K (passed November 1984) in order to protect certain public open spaces from shadowing by new structures during the period between one hour after sunrise and one hour before sunset, year round. Section 295 restricts new shadow upon public spaces under the jurisdiction of the Recreation and Parks Department by any structure exceeding 40 feet unless the City Planning Commission finds the impact to be insignificant.

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35 *Market and Octavia Neighborhood Plan Final EIR*, page 4-14, adopted September 2007. This document is available for review at the Planning Department as part of Case File No. 2003.0347E

36 Ibid.

37 "Equivalent wind speed" is defined as an hourly mean wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians. San Francisco Planning Code Section 148(b).

In general, all applications for new construction or additions to existing buildings above 40 feet in height must be reviewed to determine whether a project would cast additional shadows on properties under the jurisdiction of, or designated to be acquired by the Recreation and Park Department. In this case, the Planning Department develops a "shadow fan" diagram that shows the maximum extent of the shadows cast by a proposed building throughout the year, between one hour after sunrise and one hour before sunset. If the shadow fan indicates a project shadow does not reach any property protected by Planning Code Section 295 (the sunlight ordinance), no further review is required. If the shadow fan shows that a project has potential to shade such properties, further analysis is required.

Moreover, the Planning Code regulates sunlight access on particular downtown street segments during certain daytime hours. Specifically, Planning Code Section 146(a) includes sunlight access criteria to allow direct sunlight to reach sidewalk areas of designated streets during critical hours of the day. In the case of sidewalks, the critical hours are considered to be midday hours. The Code designates 18 streets within the project area (all near the Downtown) as subject to Section 146(a). Individual projects within downtown must comply with Section 146(a) requirements, or obtain an allowable exception under Section 309 of the Planning Code.

Planning Code Section 146(c) includes sunlight access criteria to reduce substantial shadow impacts on public sidewalks in the C-3 Districts other than those protected by Section 146(a). New buildings and additions to existing structures must minimize any substantial shadow impacts in the C-3 (Downtown) Districts not protected under Subsection (a), as long as this can be accomplished without the creation of unattractive building design and the undue restriction of development potential. Planning Code Section 147 states that new buildings and additions to existing buildings in C-3, South of Market Mixed Use, and Eastern Neighborhoods Mixed Use Districts where the building height exceeds 50 feet shall be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site in question, to reduce substantial shadow impacts on public plazas and other publicly accessible spaces other than those protected under Section 295.

The CSE Update does not include any policy or objective that could in and of itself result in adverse shadow effects, and as a policy document, no specific projects are proposed at this time. The potential for adverse shadow effects would be assessed in conjunction with the particular proposal. Therefore, the proposed CSE Update would not create shadow in a manner "that substantially affects outdoor recreation facilities or other public areas." Implementation of the CSE Update would result in less-than-significant effects related to shadow.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
10. RECREATION—Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	☒	☐	☐

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒	☐
c) Physically degrade existing recreational resources?	☐	☐	☒	☐	☐

Impact RE-1: The CSE Update policies would not cause substantial physical deterioration of citywide parks or otherwise physically degrade existing recreational resources. (Less than Significant)

Over time, projected citywide growth in residential population and jobs may increase the use of existing parks and recreational facilities. In response to anticipated demands for park and recreational amenities, the San Francisco Planning Department is currently updating the Recreation and Safety Element (ROSE) of the General Plan. The draft ROSE Update includes Policy 2.1, which states that the City should "Prioritize acquisition of open space in high needs areas." This which is similar to existing ROSE Policies 2.1 ("Provide an adequate total quantity and equitable distribution of public open spaces throughout the City."); 2.7 ("Acquire additional open space for public use.") and 4.4 ("Acquire and develop new public open space in existing residential neighborhoods, giving priority to areas which are most deficient in open space.").

Out of concern for the maintenance conditions of parks, in 2003 San Francisco voters adopted Proposition C, which required the Recreation and Park Department to adopt maintenance standards for all the parks under their jurisdiction in the City. In early 2007, the Recreation and Park Department completed its first system-wide assessment of the physical condition of its park properties and facilities. This assessment, called COMET, was conducted by an independent, third-party engineering firm. Through the assessment, each park property and facility was reviewed and structural deficiencies and deferred maintenance needs were noted. The findings of the assessment indicated a need for ongoing capital investments. Per the standards, the citywide average score for a park, rated on over 80 elements, has increased from 81 percent in FY2005-06 to 90 percent in FY2009-10. These standards only apply to Recreation and Park Department owned properties.[38]

The *2008 Clean & Safe Bond Report* states: "Although the park scores reflect significant improvement regarding general upkeep, the maintenance standards do not address a number of aspects of a park that impact the user's experience. For example, the current standards do not cover the availability and modernity of amenities such as restrooms, recreation centers, and children's play areas. These, more capital-oriented issues, should be evaluated in a systematic way, either through revised standards or another approach, to determine how best to manage them."

[38] *2008 Clean & Safe Bond Report*, pp. 25-55, San Francisco Recreation and Parks Department, 2008. This document is available for review at the Planning Department in Case File 2010.0641E.

The CSE Update is a policy document that consists of general objectives and policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. Therefore, the CSE Update would not directly physically degrade any recreational resources citywide. As such, implementation of the CSE Update would result in less-than-significant physical impacts to recreational resources, both individually and cumulatively.

Impact RE-2: The CSE Update does not entail construction or expansion of recreational facilities that might have an adverse physical effect on the environment. (No Impact)

The General Plan's Community Safety Element provides policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. If adopted, the CSE Update would supersede the City's former CSE that was enacted in 1997. As described in the project description of this Initial Study, no specific projects that would result in a physical effect on the environment are proposed. Future projects resulting from the CSE Update will be subject to project-specific environmental review, in order to evaluate the potential of the specific undertaking to have an adverse physical effect on the environment. However, the policies included in the CSE Update are not expected to result in adverse physical environmental impacts. Therefore, implementation of the CSE Update would have a less-than-significant impact on recreational facilities, both individually and cumulatively.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
11. UTILITIES AND SERVICE SYSTEMS—Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒	☐
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	☐	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐

Impact UT-1: Implementation of the CSE Update would not exceed wastewater treatment facilities, exceed the capacity of the wastewater treatment provider serving the project, or result in the construction of new stormwater drainage facilities or expansion of existing facilities. (No Impact)

The City and County require National Pollutant Discharge Elimination System (NPDES) permits, as administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB), according to federal regulations for both point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint source discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States. For point source discharges, such as sewer outfalls, each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge.

As a policy document, no specific projects are proposed at this time. However, future projects that would result in the context of the CSE Update would be required to comply with all provisions of the NPDES program, as enforced by the RWQCB. Therefore, the proposed CSE Update would not directly result in an exceedance of wastewater treatment requirements. Additionally, the NPDES Phase I and Phase II requirements would regulate discharge from construction sites. Future development would be required to comply with all applicable wastewater discharge requirements issued by the State Water Resources Control Board (SWRCB) and RWQCB. The policies and objectives in the CSE Update would also not conflict with the City's Green Building Ordinance. This ordinance addresses stormwater management by seeking to reduce impervious cover, promote infiltration, and capture and treat 90 percent of the runoff from an average annual rainfall event using acceptable Best Management Practices.

Moreover, subsequent projects would also be subject to the Stormwater Management Ordinance (SMO), which became effective on May 22, 2010. This ordinance requires that any project resulting in a ground disturbance of 5,000 square feet or greater prepare a Stormwater Control Plan (SCP), consistent with the November 2009 Stormwater Design Guidelines (SDG). Responsibility for approval of the SCP is with the SFPUC Wastewater Enterprise, Urban Watershed Management Program (UWMP); or if a project is located on Port of San Francisco property, with the Port. The ordinance requires compliance with the Stormwater Design Guidelines (SDG).

As per the requirements of the SDG, projects must achieve the performance requirements of LEED Sustainable Sites (SS) c6.1, "Stormwater Design: Quantity Control," which require implementation of stormwater management approachs to prevent stormwater runoff flow rate and volume from exceeding existing conditions for the one- and two-year 24-hour design storm. For projects with impervious areas greater than 50 percent, a stormwater management approach must be implemented that reduces existing stormwater runoff flow rate and volume by 25 percent for a two-year 24-hour design storm. Projects are required to minimize disruption of natural hydrology by implementing Low Impact Design approaches such as reduced impervious cover, reuse of stormwater, or increased infiltration. This in turn would limit the incremental demand on both the collection system and wastewater facilities resulting from stormwater discharges, and minimize the potential for upsizing or constructing new facilities.

The San Francisco Public Utilities Commission (SFPUC) is currently developing a Sewer System Master Plan to address anticipated infrastructure issues, to meet anticipated regulatory requirements, as well as to accommodate planned growth. Projections for sewer service demand were assessed to 2030 to determine future population, flows, and loads based on 1) population information provided by the Association of Bay Area Governments and accepted by the Planning Department; 2) flows projected by the SFPUC based on water usage within the city; and 3) flows projected by the outside agencies that are discharging into San Francisco's sewer system based on agreements made with the U.S. Environmental Protection Agency during the grants programs of the 1970s and 1980s. Implementation of the CSE Update would not conflict with the Sewer System Master Plan nor would be expected to exceed applicable wastewater treatment requirements of the RWQCB with respect to discharges to the sewer system or stormwater system within the City. Therefore, the CSE Update would have no impact with respect to the exceedance of wastewater treatment requirements.

Impact UT-2: The City and County projects that there are sufficient water supplies and entitlements to serve anticipated citywide population growth, and implementation of the CSE Update would not require expansion or construction of new water treatment facilities. (Less than Significant)

The SFPUC provides water to approximately 2.4 million people in San Francisco, Santa Clara, Alameda, San Mateo, and Tuolumne Counties. Approximately 96 percent of the water provided to San Francisco is supplied by the SFPUC Regional Water System, which is made up of water from the Hetch Hetchy Reservoir and Bay Area reservoirs in the Alameda Creek and Peninsula watersheds.[39]

Citywide water use in the year 2000 was approximately 84 million gallons per day (mgd), of which about 57 percent was for residential customers and about 34 percent for business. System-wide demand from both retail and wholesale customers is projected to increase to about 300 mgd by 2030. Residential water demand in San Francisco is expected to decrease slightly between 2000 and 2030, in spite of a projected increase in the City's population, because of an anticipated decrease in household size and an increased use of water-efficient plumbing fixtures.

The 2010 Urban Water Management Plan for the City and County of San Francisco (UWMP) projects that, during normal precipitation years, the SFPUC will have adequate supplies to meet projected demand.[40] During multiple dry years, however, additional water sources will be required. To address this issue, the SFPUC initiated the multi-year program Water System Improvement Program (WSIP) to rebuild and upgrade the water system and is currently implementing the WSIP to provide improvements to its water infrastructure. The SFPUC also is developing an Integrated Water Resource Plan, a planning document detailing how long-term water demand can also be met through a mix of water supply options (such as groundwater, recycled water, conservation, and imported water).

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39 Information related to water supply and summarized from *San Francisco 2004 and 2009 Housing Element Final Environmental Impact Report*, Case No. 2007.1275E and *Water System Improvement Program Final Environmental Impact Report*, Case No. 2005.0159E. These documents are available for review at the Planning Department, 1650 Mission Street, Suite 400.

40 *2010 Urban Warter Management Plan for the City and County of San Francisco*, San Francisco Public Utilities Commission, June 2011. This document is available for review at: http://www.sfwater.org.

Future parks and recreational facilities could increase demand for water resources primarily associated with irrigation for landscaping. The RPD is the biggest user of water in the city, with an annual total usage of 691 million gallons. According to the UWMP, approximately 2.5 mgd of ground water are used for irrigation purposes.

In recognition of water demands associated with irrigation, the SFPUC is seeking to reduce reliance on potable water for nonpotable uses through the production and distribution of highly treated recycled water through the development of the Westside Water Project. The project objective is to meet the current demands of several SFPUC customers with substantial irrigation demands, including Golden Gate Park, Lincoln Park/Lincoln Park Golf Course (Lincoln Park), and the Presidio Golf Course. Together, the recycled water demand for these customers is estimated at 1.6 mgd (annual average). The project would be sized to accommodate peak-day demands of up to 4.5 mgd (or 2.0 mgd annual average) in anticipation that the facility could also provide future service to other nearby parks or irrigated medians. The project would involve the construction of a recycled water treatment facility and underground storage, and construction of and/or upgrades to distribution facilities (pipelines and pumping facilities) for service to these customers. The project is currently undergoing environmental review and the system is estimated to be completed by 2015.[41] Planning and feasibility of other possible projects as part of the San Francisco Recycled Water Program include the Eastside Recycled Water Project; Harding Park Recycled Water Project; and the Sharp Park Recycled Water Project.

The San Francisco Green Landscaping Ordinance (No. 84-10) was adopted on April 22, 2010 and applies to new development projects and projects involving significant alternation. The ordinance requires landscaping of publicly visible areas and rights-of-way including front yards, parking lot perimeters, and pedestrian walkways, as well as screening of parking and vehicular use areas. The ordinance also requires compliance with San Francisco Administrative Code Chapter 63, which applies to property owners requesting a new irrigation water service meter with a landscape area of 1,000 square feet or larger. The goals of the Green Landscaping Ordinance include the following: healthier and more plentiful plantings through screening, parking lot, and street tree controls; increased permeability through front yard and parking lot controls; encourage responsible water use through increasing "climate appropriate" plantings; and improved screening by creating an ornamental fencing requirement and requiring screening for newly defined "vehicle use areas."[42]

San Francisco's Water Efficient Irrigation Ordinance (Chapter 63 of the Administrative Code) requires that landscape projects be installed, constructed, operated, and maintained in accordance with rules adopted by the SFPUC that establish a water budget for outdoor water consumption. A Maximum Applied Water Allowance, or water budget, is calculated for each landscape project and provides the project applicant with the appropriate amount of water that may be used to irrigate their landscape area. The requirements apply to public agencies and owners of residential, commercial, and mixed use properties with new construction landscape projects or rehabilitated landscape projects. If there are no plans to modify or improve the property's existing landscape or if the improvement areas are less than 1,000 square feet over a

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41 *San Francisco Westside Recycled Water Project*, Notice of EIR Preparation, September 2008. This document is part of Case File No. 2008.0091E, available for review online at: http://www.sfplanning.org/index.aspx?page=1829.

42 *Complying with San Francisco's Water Efficient Irrigation Requirements*, SF PUC, January 2011. This document is available for review on line at: http://sfwater.org/Modules/ShowDocument.aspx?documentID=731.

one year period, landscape documentation does not need to be submitted to the SFPUC; however, water efficient landscaping practices are encouraged. All landscapes are still subject to water waste prevention provisions. Different compliance mechanisms are applied based on the square footage of the new or rehabilitated landscape area.

The City also has adopted recycled water ordinances (Nos. 390-91, 391-91, 393-94) which require property owners, including municipal property owners, to install recycled water systems for recycled water use within designated recycled water use areas under the following circumstances: new or remodeled buildings and all subdivisions with a total cumulative area of 40,000 square feet or more or new and existing irrigated areas of 10,000 square feet or more. Non-potable recycled water is also required for soil and compaction and dust control activities during project construction (Ordinance 175-91). The SFPUC operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge.

In sum, according to the Urban Water Management Plan, projected growth in residential and commercial sectors, and indirectly recreation and other uses, would be accommodated by current and future water supplies through 2030. The policies and objectives in the CSE Update would not require expansion or construction of new water treatment facilities to meet anticipated needs. Further, the objectives and policies would not conflict with existing ordinances that have been adopted to address water conservation. Therefore, effects on water supply and wastewater treatment facilities would be less than significant.

Impact UT-3: Implementation of the CSE Update would not to substantially affect landfill capacity or conflict with the City's current disposal agreement. (Less than Significant)

Solid waste generated in San Francisco is transported to and disposed of at the Altamont Landfilll. The Altamont Landfill has an annual solid waste capacity of 2,226,500 tons for the City and County of San Francisco. However, the City is below its allowed capacity, generating approximately 550,000 tons of solid waste in 2005.[43]

The San Francisco Board of Supervisors and Commission on the Environment set the City's landfill diversion goals at 75 percent by 2010 and zero waste by 2020 (Resolutions 679-02 and 002-03-COE). In order for the City to reach its 75 percent diversion goal, it must divert over 100,000 additional tons per year from the residential, commercial and City government sectors. Recycling, composting and waste reduction efforts are expected to increasingly divert waste from the landfill. The CSE Update's objectives and policies are not expected to substantially affect the projected life of the Altamont Landfill or the City's current disposal agreement, and this impact would be less than significant.

Impact UT-4: Implementation of the CSE Update would not conflict with applicable statutes and regulations related to solid waste. (No Impact)

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43 Cesar Chavez Street Sewer System Improvement Project, Mitigated Negative Declaration, Case No. 2009.0276E, December 2, 2009. This report is available for review at the Planning Department.

The CSE Update's policies and objectives would not conflict with pertinent federal, state and local statutes and regulations regarding the disposal of solid waste generated by construction activities; therefore, no adverse impacts would occur.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
12. PUBLIC SERVICES—Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of, or the 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 any public services such as fire protection, police protection, schools, parks, or other services?	☐	☐	☐	☒	☐

Impact PS-1: The CSE Update is not expected to increase demand for police protection and fire protection or require new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. (No Impact)

The San Francisco Police Department provides police services to residents, visitors and workers in the City and County from the following ten stations: Central, Southern, Bayview, Mission, North, Park, Richmond, Ingleside, Taraval, and the Tenderloin. Because the undertaking involves amending and updating objectives and policies in the General Plan, no individual projects are proposed, and the CSE Update would not require new or physically altered governmental facilities such as police stations.

With respect to fire protection, the San Francisco Fire Department (SFFD) provides emergency services to the City and County of San Francisco. The SFFD consists of 42 engine companies, 19 truck companies, 20 ambulances, 2 rescue squads, 2 fire boats and 19 special purpose units. The engine companies are organized into 9 battalions. There are 41 permanently-staffed fire stations, and although the SFFD system has evolved over the years to respond to changing needs, the current station configuration has not changed substantially since the 1970s.[44]

Implementation of the CSE Update would not conflict with the General Plan's Community Facilities Element pertaining to police facilities, nor would it conflict with the General Plan's "Principles for Fire Facilities," related to the siting of future fire stations. As such, the CSE Update would have no impact on police or fire services.

Impact PS-2: The CSE Update would and would not require the construction of new or physically altered school facilities. (No Impact)

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[44] *A Review of San Francisco's Fire and EMS Services*, City and County of San Francisco, Office of the Controller, April 28, 2004. This document is available for review at the Planning Department in Case File No. 2010.0641E.

The San Francisco Unified School District (SFUSD) provides public educational services within the City and County. In the last decade, overall SFUSD enrollment has gradually declined. The decline stopped in the fall of 2008, when kindergarten enrollments began to increase, reflecting a growth in birth rates five years earlier. SFUSD projections indicate that elementary enrollment will continue to grow.[45] The number of elementary school students will eventually rise from 25,000 students in 2008 to 27,600 in 2013, representing an 11 percent increase in five years. After a slight decline in 2009 and 2010, middle school enrollment will increase again. However, in 2013 it will still stand below current enrollment (at 11,640 compared with 11,816 in 2008). High school enrollment will experience a continuous decline over the next five years, from 19,696 students in 2008 to 18,396 in 2013. District-wide enrollment as of Fall 2008 was 55,272. The District currently maintains a property and building portfolio that has a student capacity for over 90,000 students.[46] Thus, even with increasing enrollment, facilities throughout the City and County are underutilized.

Implementation of the CSE Update is not assumed to change the demand for schools, and no new school facilities would be needed to accommodate the objectives of the CSE Update.

The CSE Update does contain Policy 2.19 which calls for the City to "Seek funding for preparedness projects." A significant amount of preparedness funding exists at the state and federal level, and the Strategic Growth Plan education proposal authorizes state dollars for seismic safety improvements to schools and education facilities.

Because the CSE Update would not require the construction of new or physically altered schools, its implementation would have no adverse impact on public services.

Impact PS-3: The CSE Update would not increase demand for government services that would result in significant physical impacts. (No Impact)

As a policy document, the CSE Update would not increase demand for government services that would trigger the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
13. BIOLOGICAL RESOURCES— 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?	☐	☐	☒	☐	☐

[45] San Francisco Unified School District, *Capital Plan FY 2010-2019*, September 2009. Available at *http://portal.sfusd.edu/data/facilities/FINAL%20APPROVED%20CAPITAL%20PLAN%202010-2019%20Oct%2027%202009.pdf*, accessed February 11, 2010.

[46] S.F.U.S.D. School Profiles 2008-2009, *http://orb.sfusd.edu/profile/prfl-100.htm*, accessed February 11, 2010.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, 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, marsh, vernal pool, coastal, 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?	☐	☐	☒	☐	☐

Impact BI-1: The CSE Update would not have a substantial adverse effect, either directly or through habitat modifications, on any special status species, sensitive natural community, protected wetlands, or conflict with an adopted conservation plan. (Less than Significant)

The term "special-status species" refers to those plant and animal species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as "Threatened" or "Endangered" but designated as "Rare" or "Sensitive" on the basis of adopted policies and expertise of state resource agencies or organizations, or local agencies such as counties, cities, and special districts. A query of the California Department of Fish and Game's (CDFG) California Natural Diversity Database reports 74 special-status plant and animal species in the San Francisco North and San Francisco South USGS 7.5-minute quadrangles.[47] "Special-status species" also include raptors (birds of prey), which, along with other taxa, are specifically protected by CDFG (under Fish and Game Code Section 3511 Birds, Section 4700 Mammals, Section 5050 Reptiles and Amphibians, and Section 5515 Fish) and by Fish and Game Code Section 3503.5, which prohibits the take, possession, or killing of raptors and owls, their nests, and their eggs. The inclusion of birds protected by Fish and Game Code Section 3503.5 is in recognition of the fact that these birds are substantially less common in California than most other birds, having lost much of their habitat to development, and that the populations of these species are therefore substantially more vulnerable to further loss of habitat and to interference with nesting and breeding than are most other birds.

[47] California Department of Fish and Game (CDFG), California Natural Diversity Database (CNDDB) version 3.1.0, data request for the San Francisco North and San Francisco South U.S. Geological Survey 7.5-minute topographic quadrangles, commercial version, retrieved 7/27/2011.

San Francisco's natural areas are the undeveloped remnants of the historical landscape, which contain rich and diverse plant and animal communities. Following the adoption of the current Recreation and Open Space Element in 1986, the RPD developed a Natural Areas Program to manage the 1,107 acres within 32 parks and portions of parks that constitute a natural area.[48] Most of the undeveloped portions of Twin Peaks, Lake Merced, and Glen Canyon Park are designated natural areas. Natural areas do not contain manicured lawns, ballfields, or ornamental flowerbeds. Most of Golden Gate Park—approximately 96 percent—is not a natural area.[49] Natural areas are defined as those areas that include natural habitat that may support candidate, sensitive, or special-status species. Example species include: red-tail hawk; snowy plover; western pond turtle; tree swallow; San Francisco garter snake; California red-legged frog; Mission Blue butterfly; Common Fiddleneck; San Francisco gumplant; hummingbird sage; California huckleberry, among others.[50]

In the late 1990s, the Recreation and Park Department developed a Natural Areas Program to protect and manage natural areas for the natural and human values that these areas provide. The Natural Areas Program mission is to preserve, restore and enhance the remnant Natural Areas and to promote environmental stewardship of these areas. In 1995, the San Francisco Recreation and Park Commission approved the first Significant Natural Resource Areas Management Plan (SNRAMP). The SNRAMP is currently undergoing an update and contains detailed information on the biology, geology and trials within the designated areas. The SNRAMP also recommends actions and best management practices intended to guide natural resource protection, habitat restoration, trail and access improvements, other capital projects, and maintenance activities over the next 20 years. Maintenance and conservation activities are categorized based on management priorities and represent differing levels of sensitivity, species presence, and habitat complexity. The SNRAMP is currently under environmental review and is scheduled for adoption in 2012.

The purpose of the CSE is to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. The CSE Update would not conflict with existing or foreseeable conservation plans or programs that pertain to the protection of special status species or other natural resources. Therefore, implementation of the CSE Update would have a less than significant effect either directly or through habitat modifications, on any special status species, sensitive natural community, protected wetlands, or conflict with an adopted conservation plan.

Impact BI-2: Implementation of the CSE Update would not have a substantial adverse effect on any riparian habitat or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. (No Impact)

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48 Thirty-one of the 32 designated natural areas are within the City and County of San Francisco and comprise a land area of about 870 acres. Sharp Park in Pacifica is the 32nd designated area and includes about 237 acres. Personal communication, Lisa Beyer, Recreation and Parks Department, August 31, 2011.

49 Recreation and Parks Department Natural Areas Program FAQ, *http://sfrecpark.org/naFAQs.aspx*, accessed on August 15, 2011.

50 CDFG, Special Animals List; Significant Natural Areas Plan (Public Draft), Table 3-5, San Francisco Recreation and Parks Department, June 2005. This document is available for review at the San Francisco Planning Department in Case File 2005.1912E.

Wetlands and riparian areas provide habitat, biological benefits, and resource efficient methods for treating storm water runoff that often serve recreational users. Many of the City's wetlands have been buried by development and little of the original wetlands have survived. A number of restoration projects have recently been completed or are underway, including Crissy field, Heron's Head, Pier 94 and the fresh and seasonal wetland at Lake Merced.

The state's authority in regulating activities in wetlands and waters resides primarily with the State Water Resources Control Board (SWRCB). The SWRCB, acting through the San Francisco Regional Water Quality Control Board (RWQCB), must certify that an Army Corps of Engineers permit action meets state water quality objectives (CWA Section 401). Any condition of water quality certification is then incorporated into the Corps Section 404 permit authorized for a specific project. The SWRCB and RWQCB also have jurisdiction over waters of the state under the Porter-Cologne Water Quality Control Act (Porter-Cologne). The SWRCB and RWQCB evaluate proposed actions for consistency with the RWQCB's Basin Plan, and authorize impacts on waters of the state by issuing Waste Discharge Requirements (WDR) or in some cases, a waiver of WDR.

The San Francisco Bay Conservation and Development Commission (BCDC) has jurisdiction over coastal activities occurring within the San Francisco Bay Area. BCDC was created by the McAteer-Petris Act (California Government Code Sections 66600–66682). BCDC regulates fill, extraction of materials, and substantial change in use of land, water, and structures in San Francisco Bay and development within 100 feet of the Bay. BCDC has jurisdiction over all areas of the Bay that are subject to tidal action, including subtidal areas, intertidal areas, and tidal marsh areas that are between mean high tide and 5 feet above mean sea level. BCDC's permit jurisdiction does not extend to federally owned areas, such GGNRA lands, because they are excluded from state coastal zones pursuant to the Coastal Zone Management Act of 1972 (CZMA). However, the CZMA requires that all applicants for federal permits and federal agency sponsors obtain certification from the state's approved coastal program that a proposed project is consistent with the state's program. In San Francisco Bay, BCDC is charged with making this consistency determination.

The purpose of the CSE is to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. Implementation of the CSE Update would have no impact on any riparian habitat or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Future projects would be subject to separate, independent study and environmental review, and those projects that may affect wetland or riparian areas would be subject to regulations by, but not limited to, the Army Corps of Engineers, SWRCB, RWQCB and BCDC as appropriate.

Impact BI-3: The CSE Update would not interfere with the movement of native resident or wildlife species or with established native resident or migratory wildlife corridors. (Less than Significant)

There are approximately 400 resident and migratory species of birds in San Francisco, due to the diverse habitats of the Bay Area and its position on a coastal migration path known as the Pacific Flyway. The San Francisco Planning Department adopted the Standards for Bird-Safe Buildings

("Standards") in 2011.[51] These standards include guidelines for use and types of glass and façade treatments, wind generators and grates, and lighting treatments. The standards would impose requirements for bird-safe glazing and lighting minimization in structures or at sites that represent a 'bird hazard' and would recommend educational guidelines and voluntary programs. The Standards define two types of bird hazards. Location-related hazards are buildings located inside of, or within a clear flight path of less than 300 feet from, an Urban Bird Refuge.[47] Such buildings require treatment when new buildings are constructed; additions are made to existing buildings, or existing buildings replace 50% or more of the glazing within the "bird collision zone."[28] The standards require implementation of the following treatments for facades facing, or located within, an Urban Bird Refuge:

- No more than 10 percent untreated glazing on the building facades within the bird collision zone.
- Minimal use of lighting. Lighting is to be shielded and no uplighting permitted. No event searchlights would be permitted for the property.
- Sites will not be permitted to use horizontal access windmills or vertical access wind generators that do not appear solid.

Feature-related hazards include building or structure related features that are considered potential "bird traps" no matter where they occur (e.g., glass courtyards, transparent building corners, clear glass walls on rooftops or balconies).

In addition, the Migratory Bird Treaty Act of 1918 states that no person may "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention... for the protection of migratory birds... or any part, nest, or egg of any such bird." (16 U.S.C. 703)

Compliance with the Migratory Bird Treaty Act, and adherence to the City's Bird-Safe Building Standards would have a less than significant effect on the movement of wildlife species.

Impact BI-4: The CSE Update would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

The San Francisco Planning Department, Department of Building Inspection (DBI), and Department of Public Works (DPW) have established guidelines to ensure that legislation adopted by the Board of Supervisors governing the protection of trees is implemented. The DPW Code Section 8.02-8.11 requires disclosure and protection of Landmark, Significant, and Street

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[51] City and County of San Francisco, Planning Department, Standards of Bird-Safe Buildings, July 2011, available online at: *http://www.sfplanning.org/ftp/files/publications_reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%2011-30-11.pdf*, accecssed on January 19, 2012.

trees, collectively "protected trees" located on private and public property. A Landmark Tree has the highest level of protection and must meet certain criteria for age, size, shape, species, location, historical association, visual quality, or other contribution to the City's character and have been found worthy of Landmark status after public hearings at both the Urban Forestry Council and the Board of Supervisors. A Significant tree is either on property under the jurisdiction of the DPW, or on privately owned land within 10 feet of the public-right-of-way which satisfies certain criteria. Street trees are trees within the public right-of-way or within the DPW jurisdiction. A Planning Department "Tree Disclosure Statement" must accompany all permit applications that could potentially impact a protected tree.

The CSE establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. Implementation of the CSE Update would not conflict with existing tree preservation policies or ordinances, and this impact is considered less than significant, both individually and cumulatively.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
14. GEOLOGY AND SOILS— Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) 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? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☒
f) Change substantially the topography or any unique geologic or physical features of the site?	☐	☐	☒	☐	☐

While the CSE Update would not directly result in the construction of new facilities, potential future projects proposed in the context of the CSE would be connected to the City's existing wastewater treatment and disposal system, and would not require use of septic tanks or alternate wastewater disposal systems. Therefore, topic 14e is not applicable.

Impact GE-1: The CSE Update would not result in exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. (No Impact)

The purpose of the CSE is to reduce the impact of geologic hazards. While no known active faults exist in San Francisco, major earthquakes occurring on the faults surrounding the City have resulted in substantial damage within the City, and similar damaging earthquakes in the future are inevitable. The CSE contains maps that show areas of the City subject to seismic geologic hazards, and the CSE Update's policies and objectives would apply to projects that are within areas subject to ground shaking from earthquakes along the San Andreas, Northern Hayward and other Bay Area faults (see Map 1 on page 18). Implementation of the CSE Update would not result in impacts related to the rupture of a known earthquake fault.

Impact GE-2: The CSE Update would not result in exposure of people and structures to potential substantial adverse effects, including the risk of loss, injury, or death involving expansive soils, seismic ground-shaking, liquefaction, lateral spreading, or landslides. (Less than Significant)

The purpose of the CSE is to reduce the impact of geologic hazards. The proposed Hazard Mitigation policies under Objective 1, in particular, are intended to make San Francisco's built environment less vulnerable to ground shaking, ground failure, and other geologic hazards.[52] These Hazard Mitigation policies and programs are intended to diminish long-term impacts to an appropriate level, and when effectively carried out, reduce the need for response and recovery from disasters because they will reduce the amount of physical damage suffered.

As stated above, the City and County is located in a seismically active region, and therefore the potential exists for seismic-related ground failure. Some areas in the City may also be subject to seismic-related liquefaction or landslides. The soils most vulnerable during an earthquake are in low-lying and artificial filled land along the Bay, in low-lying valleys and old creek beds, and to some extent, along the ocean. These liquefaction areas are generally located in the Western Shoreline, Presidio, Northeastern Waterfront, Downtown, Mission Bay, SOMA, the Mission, Central Waterfront, and Bayview-Hunters Point. The hills along the central spine of the San Francisco peninsula are composed of rock and soils that are less likely to magnify ground shaking, although they are sometimes vulnerable to landslides during an earthquake.

The Seismic Hazard Zones Map for San Francisco (see Map 4 on page 21), illustrates the areas with liquefaction potential and those subject to earthquake induced landslides. This map is used by the City when adopting land use plans and in its permitting processes. Development proposals within the Seismic Hazard Zones must include a geotechnical investigation and must

[52] Hazard Mitigation policies (Policy 1.1 to 1.26) are located on page 5 to 8 in Table 1.

contain design and construction features that will mitigate the liquefaction hazard. The City's Department of Building Inspection uses these guidelines during independent building review of proposed projects.

Although the potential for seismic ground shaking and ground failure to occur within San Francisco is unavoidable, no structures or specific projects are proposed under the CSE Update that would be constructed which could expose people to new seismic-related hazards. Compliance with the San Francisco Building Code, Earthquake Hazards Reduction Act, Alquist-Priolo Earthquake Fault Zoning Act, and Seismic Hazards Mapping Act of 1990 would off-set any potential impacts for future projects. The State of California provides minimum standards for building design through the California Building Code (CBC). The CBC regulates excavation, foundation and retaining walls. The CBC applies to building design and construction in the state and is based on the federal Uniform Building Code (UBC), used widely throughout the country. The CBC has been modified for California conditions with numerous, more detailed and/or more stringent regulations. The Code identifies seismic factors that must be considered in structural design.

Additionally, the San Francisco Building Code includes regulations that would further reduce potential impacts, such as requiring compliance with the City's Code that contains specific provisions related to seismic hazards and upgrades. Compliance with the Building Code is mandatory for development in San Francisco. Throughout the permitting, design, and construction phases of a building project, Planning Department staff, DBI engineers, and DBI building inspectors confirm that the Building Code is being implemented by project architects, engineers, and contractors. During the design phase for future residential development, foundation support and structural specifications based on the preliminary foundation investigations would be prepared by the engineer and architect and would be reviewed for compliance with the Building Code by the Planning Department and DBI. DBI in its permit review process would ensure that buildings meet specifications for the protection of life and safety and all new development would be required to comply with the previously discussed federal, state, and local regulations.

The CSE Update would introduce a new policy that calls for the City to "Support development and amendments to building code requirements that meet City seismic performance goals." (Policy 1.5). The design and construction methods used in buildings are critical to community safety. Current seismic codes ensure that new buildings are earthquake- and fire-resistant, and protect people inside buildings by preventing collapse and allowing for safe evacuation. However, current code requirements do not necessarily limit damage to a structure, or ensure its function post-earthquake. A number of factors support the idea that new and retrofitted buildings in San Francisco should be built for better seismic performance than the default level provided by the current building code, or give options for quantifiably improved seismic performance, and that the seismic performance expectations of the current code should be made explicit. Among U.S cities in areas of very high seismic hazard, San Francisco is unique because of its geography, urbanization, and reliance on public transportation. Damage to new buildings and developments can have magnified impacts that affect adjacent structures and the city's lifelines. Seismic improvements can often be provided with measures that increase building costs by no more than a few percent, if at all.

The Bay Area is fortunate to be home to many of the country's foremost experts in the structural and earthquake engineering professions. These professional should be encouraged to design buildings to tiered, "enhanced" levels of seismic performance that are performance-based, and developers to finance these enhanced levels, by offering incentives such as priority processing (similar to a LEED certification for sustainable design). Eventually the City should consider ways to formalize such "enhanced" design levels and use them as a basis for evaluating seismic risk.

Based on the above, the CSE Update would have a less than significant impact with respect to the exposure of people to strong seismic ground shaking and seismic-related ground failure, including liquefaction, or landslides. In addition, since there are no known fault zones or designated Alquist-Priolo Earthquake Fault Zones in the City, the CSE Update would have no impact with respect to rupture of a known earthquake fault.

Impact GE-3: The CSE Update would not result in substantial loss of topsoil, erosion or adverse impacts to topographical features. (Less than Significant)

Construction activities could result in impacts related to soil erosion and the loss of topsoil, if future projects in the context of the CSE Update would require substantial amounts of grading. This could result in erosion as well as potentially change the topography or any unique geologic or physical features.

Potential impacts would be offset by compliance with the California Building Standards Code and the San Francisco Building Code that include regulations that have been adopted to reduce impacts from grading and erosion. Compliance with the Building Code is mandatory for development in San Francisco. During the design phase for buildings, grading plans must be prepared by the engineer and architect that would be reviewed by the Planning Department and Department of Building Inspection for compliance with the Building Code. Regulations that would further reduce erosion effects include compliance with National Pollution Discharge Elimination System (NPDES) permits related to construction activities as administered by the San Francisco Bay Regional Water Quality Control Board. Under these regulations, a project sponsor must obtain a general permit through the NPDES Stormwater Program for all construction activities with ground disturbance of one acre or more. The general permit requires the implementation of best management practices to control erosion, including the development of an erosion and sediment control plan for wind and rain. Therefore, the CSE Update would have a less than significant impact with respect to soil erosion or the loss of topsoil.

Impact GE-4: The CSE Update would not construct new projects on geologic units or soils that are expansive, unstable, or that would become unstable as a result of future uses, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (Less than Significant)

Construction activities could occur in the context of the CSE Update in the future and may result in impacts related to expansive soil if new uses would be constructed on or near unstable areas. However, as previously stated, no specific development projects are proposed at this time, and any future projects would require separate environmental review. As discussed above under

Impact GE-2, the purpose of the CSE is to reduce the impact of geologic hazards, and the proposed Hazard Mitigation policies, in particular, are intended to make San Francisco's built environment less vulnerable to ground shaking, ground failure, and other geologic hazards. Potential geotechnical and soils impacts would be offset by compliance with the previously discussed regulations, including those in the San Francisco Building Code. The Department of Building Inspection, in its permit review process, would ensure that buildings meet specifications for the protection of life and safety. Therefore, the implementation of the CSE Update would have a less than significant impact with respect to expansive soils, creating substantial risks to life or property.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
15. HYDROLOGY AND WATER QUALITY— Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion of siltation on- or off-site?	☐	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☐	☒	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	☐	☐	☒	☐	☐
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☒	☐	☐
i) 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?	☐	☐	☒	☐	☐
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐	☐

Impact HY-1: The CSE Update would not violate water quality standards or otherwise substantially degrade water quality. (Less than Significant)

Although the CSE Update does not propose new projects, construction of future projects that may be proposed in the context of the CSE would be required to comply with federal, state, and local regulations that pertain to water quality. Groundwater that is encountered during construction is subject to the requirements of the City's Industrial Waste Ordinance (Ordinance Number 199-77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. Treatment would be provided pursuant to the effluent discharge standards contained in the City's National Pollutant Discharge Elimination System (NPDES) permit for its wastewater treatment plants.

San Francisco's combined sewer system is overseen by a comprehensive master plan adopted approximately 40 years ago. The sewer system has operated well but aging infrastructure, funding constraints, and deferred maintenance have created the need for another long-term master plan. In 2005, the SFPUC initiated a new master plan to develop a long-term strategy for management of the City's wastewater and stormwater, to provide a detailed roadmap for improvements needed over the next few decades and to estimate funds to implement these improvements, to address specific challenges facing the system, and to maximize system reliability and flexibility. Environmental review of the draft Master Plan is anticipated to be complete in 2012.[53] The SFPUC is also preparing the Recycled Water Master Plan, which would guide implementation of recycled water projects that would reduce overall need for additional wastewater treatment. Additional regulations that would reduce potential impacts from polluted runoff include compliance with NPDES permits related to construction activities as administered by the SFBRWQCB and Article 4 of the Porter-Cologne Water Quality Act, compliance with the Combined Sewer Overflow Control Policy and Total Maximum Daily Load standards as set forth by the Basin Plan.[54]

The CSE Update includes Policy 1.11 that states, "Continue to promote green stormwater management techniques." As an urbanized area, San Francisco has an abundance of impervious surface. Buildings, streets, parking lots and other paved surfaces prevent the absorption of rainfall, so low lying areas of the City are particularly susceptible to flooding in heavy rains. In addition, urban storm water runoff can be highly polluted, and pollutants that go down street storm drains can have negative impacts on the sewer and storm system, contributing to system overflows. Natural systems can often be an effective supplement, helping to absorb the overflow and filter out pollutants from that runoff. Building and site development should include natural systems wherever possible. Natural vegetation, landscaped swales and gardens included in site designs can reduce, filter or slow stormwater runoff. "Green streets" that include pervious concrete, planters and landscaped strips adjacent to sidewalks can assist the City's sewer

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53 SFPUC, Wastewater (Sewers): Sewer System Master Plan, website: *http://sfwater.org/mto_main.cfm/MC_ID/14/MSC_ID/120/MTO_ID/677*, accessed July 28, 2011.

54 The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the Regional Water Quality Control Board's master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The Basin Plan has been adopted and approved by the State Water Resources Control Board, U.S. EPA, and the Office of Administrative Law where required.

discharge capabilities. Green roofs incorporated into buildings provide another method of absorption. Similarly, sustainable construction techniques can be used to mitigate against the effects of future disasters. Green building technologies now allow for buildings that can provide their own power and filter their own water from run-off. This helps reduce two problems associated with disasters, the need for power and the need for potable water.

The CSE Update includes Policy 1.18 that states, "Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas." In the case of a disaster, two of the most critical networks will be the City's water system and its sewer and sanitation lines. Upgrades are already underway. The Water Department and the Department of Public Works have ongoing programs to replace vulnerable water mains and sewers and to improve performance of the systems during earthquakes by including system segmentation, safety shut-off systems and redundant back-up systems or other methods of reducing damage and providing alternative sources of service. The San Francisco Public Utilities Commission is undertaking a Water System Improvement Program to strengthen the Hetch Hetchy water transmission system against earthquake damage, with completion anticipated by 2015. A connecting pipeline is currently under construction to connect the region's major water supply systems of the Hetch Hetchy, managed by the SFPUC, and the reservoirs in Calaveras, Amador and Alpine counties managed by the East Bay Municipal Utility District (EBMUD), which will enable water to be distributed from one Bay Area system to another in the case of failure. However, aging infrastructure in the City's sewer and sanitation system is a concern – beyond ailing pipes, the City's tunnels, pump stations and treatment plants need upgrades and repairs. The SF Sewer System Master Plan project currently underway at the PUC will eventually provide a detailed roadmap for these major improvements, and provide a plan for funding these improvements.

Lastly, regulations incorporated into the San Francisco Green Building Ordinance address stormwater management by seeking to reduce impervious cover, promote infiltration, and capture and treat 90 percent of the runoff from an average annual rainfall event using acceptable Best Management Practices. These regulations require that projects on undeveloped sites would need to avoid any increase in runoff, while previously developed sites would be required to reduce runoff from existing amounts. The CSE Update policies and objectives would not conflict with existing policies, regulations or programs that pertain to water quality. As such, implementation of the CSE Update would have a less than significant impact with regard to degradation of water quality or contamination of public water supply, individually or cumulatively.

Impact HY-2: The CSE Update would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. (Less than Significant)

The City overlies all or part of seven groundwater basins. These groundwater basins include the Westside, Lobos, Marina, Downtown, Islais Valley, South San Francisco, and Visitation Valley basins. The Lobos, Marina, Downtown and South basins are located wholly within the City limits, while the remaining three extend south into San Mateo County. With the exception of the Westside and Lobos basins, all of the basins are generally inadequate to supply a significant amount of groundwater for municipal supply due to low yield.[55] Local groundwater use has

[55] 2010 Urban Water Management Plan for the City and County of San Francisco, pg. 25, SFPUC, June, 2011.

occurred in small quantities in the City. For several decades groundwater has been pumped from wells located in Golden Gate Park and the San Francisco Zoo. Based on well operator estimates, about 1.5 million gallons a day is produced by these wells. The groundwater is mostly used in the Westside Groundwater Basin by the Recreation and Park Department for irrigation in Golden Gate Park and at the Zoo. These wells are located in the North Westside Groundwater Basin. The California Department of Water Resources (CA DWR) has not identified this basin as over-drafted, nor as projected to be over-drafted in the future. Based on semi-annual monitoring, the groundwater currently used for irrigation and other non-potable uses in San Francisco meets, or exceeds, the water quality needs for these end uses.

Implementation of the CSE Update would not directly result in the removal of water, either from the ground or other sources. However, construction of future projects that may be proposed in the context of the CSE could result in impacts related to groundwater supplies if the development would require dewatering or result in groundwater drawdown or substantially reduce infiltration. Future proposals would be evaluated on a project-level basis considering location of development, depth of potential groundwater, and type of construction being proposed. Proposals would be would be required to comply with existing regulations, including the San Francisco Public Utilities Commission's Stormwater Design Guidelines. Therefore, the CSE Update would result in less-than-significant effects related to groundwater.

Impact HY-3: The CSE Update would not substantially alter the City's existing drainage patterns, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation. (Less than Significant)

The City contains many small creeks which historically ran from the east side of the City to the Bay, including Hayes Creek, Arroyo Delores, Mission Creek, Precita Creek, Islais Creek, and Yosemite Creek. The Presidio is home to Lobos Creek and Dragonfly Creek; Islais Creek runs through Glen Canyon and O'Shaughnessy Hollow. However, most of these creeks have been filled or run underground in culverts and are not free-flowing on the surface. There are no existing rivers in the City. Implementation of the CSE Update would not result in any direct erosion effects or alter the course of a stream or river.

The CSE Update does not propose new projects; however, construction of future projects may be proposed in the context of the CSE. The potential for on-site erosion of exposed soil surfaces during construction activity is addressed in Impact UT-1. As described therein, future projects would be assumed to comply with regulations related to runoff and grading, including the Stormwater Management Ordinance. As such, implementation of the CSE Update would have less-than-significant effects related to erosion and siltation.

Impact HY-4: The CSE Update would not expose people, housing, or structures to substantial risk of loss due to flooding. (Less than Significant)

Development in the City and County of San Francisco must account for flooding potential. Areas located on fill or bay mud can subside to a point at which the sewers do not drain freely during a storm (and sometimes during dry weather) and there can be backups or flooding near these streets and sewers. Portions of the City prone to flooding during storms, especially where a

structure's ground-floors are located below an elevation of 0.0 City Datum or, more importantly, below the hydraulic grade line or water level of the sewer.

The City has implemented a review process to avoid flooding problems caused by the relative elevation of the structure to the hydraulic grade line in the sewers. Applicants for building permits for either new construction, change of use (Planning) or change of occupancy (Building Inspection), or for major alterations or enlargements are referred to the SFPUC for a determination of whether the project would result in ground-level flooding during storms. The side sewer connection permits for these projects need to be reviewed and approved by the SFPUC at the beginning of the review process for all permit applications submitted to the Planning Department and the Department of Building Inspection. The SFPUC and/or its delegate (SFDPW, Hydraulics Section) will review the permit application and comment on the proposed application and the potential for flooding during wet weather. The SFPUC will receive and return the application within a two-week period from date of receipt. The permit applicant shall refer to SFPUC requirements for information required for the review of projects in flood-prone areas. Requirements may include provision of a pump station for the sewage flow, raised elevation of entryways, and/or special sidewalk construction and the provision of deep gutters.

Flood risk assessment and some flood protection projects are conducted by federal agencies including the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers (Corps). The flood management agencies and cities implement the National Flood Insurance Program (NFIP) under the jurisdiction of FEMA and its Flood Insurance Administration. The NFIP, which designates flood-prone areas, has recently completed mapping communities along the San Francisco Bay, including San Francisco. Areas currently designated as prone to surface flooding in San Francisco on the new floodplain maps are in portions of Mission Bay, Treasure Island, Hunters Point Shipyard and Candlestick Point, as well a significant portions of the Port.

Currently, the City does not participate in the NFIP and no flood maps are published for the City. However, FEMA is preparing Flood Insurance Rate Maps (FIRMs) for the City and County of San Francisco for the first time. FIRMs identify areas that are subject to inundation during a flood having a one percent chance of occurrence in a given year (also known as a "base flood" or "100-year flood"). FEMA refers to the floodplain that is at risk from a flood of this magnitude as a special flood hazard area ("SFHA").

Because FEMA has not previously published a FIRM for the City and County of San Francisco, there are no identified SFHAs within San Francisco's geographic boundaries. FEMA has completed the initial phases of a study of the San Francisco Bay. On September 21, 2007, FEMA issued a preliminary FIRM of San Francisco for review and comment by the City. The City has submitted comments on the preliminary FIRM to FEMA. FEMA anticipates publishing a revised preliminary FIRM in 2012[56], after completing the more detailed analysis that Port and City staff requested in 2007. After reviewing comments and appeals related to the revised preliminary FIRM, FEMA will finalize the FIRM and publish it for flood insurance and floodplain management purposes.

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[56] San Francisco Floodplain Management Program Fact Sheet, Office of the City Administrator, Revised January 25, 2011. This document is available for review at the Planning Department in Case File 2010.0641E.

FEMA has tentatively identified SFHAs along the City's shoreline in and along the San Francisco Bay consisting of Zone A (in areas subject to inundation by tidal surge) and Zone V (areas of coastal flooding subject to wave hazards).[57] On June 10, 2008, legislation was introduced at the San Francisco Board of Supervisors to enact a Floodplain Management Ordinance to govern new construction and substantial improvements in flood prone areas of San Francisco, and to authorize the City's participation in NFIP upon passage of the ordinance. The Board of Supervisors adopted the Floodplain Management Ordinance on March 23, 2010. The Department of Public Works will publish flood maps for the City, and applicable City departments and agencies may begin implementation for new construction and substantial improvements in areas shown on the Interim Floodplain Map.

Specifically, the Floodplain Management Ordinance includes a requirement that any new construction or substantial improvement of structures in a designated flood zone must meet the flood damage minimization requirements in the ordinance. The NFIP regulations allow a local jurisdiction to issue variances to its floodplain management ordinance under certain narrow circumstances, without jeopardizing the local jurisdiction's eligibility in the NFIP. However, the particular projects that are granted variances by the local jurisdiction may be deemed ineligible for federally-backed flood insurance by FEMA. Once the City has reviewed the revised preliminary FIRM, FEMA will publish a final FIRM that will be used for floodplain management and flood insurance purposes. In the meantime, the City uses the Interim Floodplain Map to support the implementation of the Floodplain Management Ordinance.

The Floodplain Management Ordinance requires first floor of structures in flood zones to be constructed above the floodplain or to be flood-proofed with variances for exceptional circumstances. The map, as proposed, would designate portions of waterfront piers, Mission Bay, Bayview Hunters Point, Hunters Point Shipyard, Candlestick Point, and Treasure Island in coastal flood hazard zones, which may have implications for development plans and insurance requirements in those areas.

Policy 1.9 of the CSE Update would call for the City to "Mitigate and assess the risk of flooding in San Francisco by incorporating the Flood Insurance Rate Map for San Francisco and related programs from this map to mitigate against flood risks."

According to Bay Conservation and Development Commission (BCDC), best available projections for California and the Bay Area currently assume 12-18 inches of sea level rise by 2050 and 21- 55 inches of sea level rise by 2100, given current carbon emissions trends.[58] These projections are likely to change over time as climate science progresses. Perhaps the most obvious and widespread consequence of sea level rise is inundation and flooding of land. Sea level rise will not only cause permanent land inundation, it will greatly increase and expand the 100-year floodplain. This will greatly increase the number of residents at risk during storm events. Much of San Francisco's land composed of bay-front filled area is at risk for inundation

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57 City and County of San Francisco, Office of the City Administrator, National Flood Insurance Program Flood Sheet, *http://www.sfgov.org/site/uploadedfiles/risk_management/factsheet.pdf*, accessed July 31, 2008.

58 Bay Conservation and Development Commission (BCDC), Sea Level Rise Index Map, *http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml*, accessed April 22, 2012.

due to its low elevation and subsidence over time due to compaction from buildings and soil desiccation. Additionally, sea walls located along the Embarcadero and along the Great Highway may be at risk for overtopping and inundation based on the extent of sea level rise.

Policy 1.8 of the CSE Update would "Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses." The significance of global warming, and its impact on disasters, has been clarified in recent years. Science correlates climate change with an increase in the frequency of natural disasters, and in economic losses from these disasters. Results of global warming include increasing runoff from urban storms, springtime floods from swollen rivers and rising sea levels. Recent studies show that more than two-thirds of the measured climate change in the past 50 years has been human-induced, and human actions can also stem this tide. New urban systems to handle storm runoff, flood control structures will be needed. Continuation of the PUC's upgrade of the City sewer system is one facet of preparation, but also critical are more imaginative solutions, like capturing storm waters for irrigation, increasing urban forestry activities and other green uses.

Policy 1.10 of the CSE Update would call for the City to "Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats."

Implementation of the CSE Update would have a less-than-significant impact with regard to exposing people or structures to significant flooding risk. Future projects that could be proposed in the context of the CSE would be subject to appropriate controls related to flooding. Therefore, the CSE Update policies would result in less-than-significant effects related to flooding hazards.

Impact HY-5: The CSE Update would not expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow, or as a result of the failure of a reservoir. (Less than Significant)

The purpose of the CSE is to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. The CSE establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. The greatest risks to life and property in San Francisco result directly from the ground shaking and ground failure associated with large earthquakes. However, other less common, natural hazards include flooding due to a tsunami, seiche or reservoir failure, may occur as a result of an earthquake. Dams and reservoirs which hold large volumes of water represent a potential hazard due to failure caused by ground shaking.

Tsunamis (seismic sea waves) are large, long period waves that are typically generated by underwater seismic disturbances, volcanic eruptions, or submarine landslides. Tsunamis, which travel at speeds up to 700 miles per hour, are typically only 1 to 3 feet high in open ocean water but may increase in height to up to 90 feet as they reach coastal areas, causing potentially large

amounts of damage when they reach land.[59] Damaging tsunamis are not common on the California coast. Most California tsunami are associated with distant earthquakes (most likely those in Alaska or South America), not with local earthquakes. Devastating tsunamis have not occurred in historic times in the Bay area. Because of the lack of reliable information about the kind of tsunami run-ups that have occurred in the prehistoric past, there is considerable uncertainty over the extent of tsunami run-up that could occur. There is ongoing research into the potential tsunami run-up in California. Map 5 (Tsunami Hazard Zones) on page 22 shows areas where tsunamis are thought to be possible.

Low-lying coastal areas such as tidal flats, marshlands, and former Bay margins that have been artificially filled but are still at or near sea level are generally the most susceptible to tsunami inundation. Some coastline residential areas and existing parks and recreational facilities, including Ocean Beach, the Presidio, Crissy Field, Marina Green, Aquatic Park, Justin Herman Plaza, Treasure Island and Candle Stick Point Recreation Area are located within mapped tsunami inundation areas.[60]

A seiche is an oscillation of a water body, such as a bay, which may cause local flooding. A seiche could occur on the San Francisco Bay due to seismic or atmospheric activity. Seiches can result in long-period waves that cause run-up or overtopping of adjacent landmasses, similar to tsunami run up. According to the historical record, seiches are rare.

The San Francisco Public Utilities Commission owns above ground reservoirs and tanks within San Francisco. Their inundation areas are shown in Map 6 (Dam Failure Inundation Areas) on page 23. The SFPUC owns aboveground reservoirs and tanks within the City and their Water Department monitors its facilities and submits periodic reports to the California Department of Water Resources, Division of Safety of Dams (DOSD), which regulates large dams. The City's largest reservoir is the Sunset Reservoir located in the Outer Sunset area. The reservoir includes a publicly accessible park around its perimeter and users in this area could potentially be subject to risk from flooding in the event of reservoir failure. The SFPUC has recently completed a seismic retrofit of the Sunset Reservoir. The north basin roof, columns and beams have been seismically reinforced and the earth embankment around the reservoir was stabilized to minimize risk from liquefaction.[61]

In the event that an earthquake occurred that would be capable of producing a tsunami that could affect San Francisco, the National Warning System would provide warning to the City. San Francisco has developed an emergency text-message alerting system, AlertSF, which delivers disaster notifications to registered users, and allows users to access neighborhood specific information. In addition, the City has reestablished the old World War II sirens to provide alerts

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59 City and County of San Francisco Hazard Mitigation Plan, URS Corporation, *http://www.sfdem.org/ftp/uploadedfiles/DEM/PlansReports/HazardMitigationPlan.pdf*, accessed April 20, 2012.

60 California Emergency Management Agency, California Geological Survey, Tsunami Inundation Maps for Emergency Planning, San Francisco West, North and East Quadrangles, California Department of Conservation, *http://www.conservation.ca.gov/CGS/GEOLOGIC_HAZARDS/TSUNAMI/Pages/Index.aspx*, accessed April 20, 2012.

61 Subsequent to the completion of the seismic upgrade the City and County engaged in a public-private partnership to install a 5 mega-watt solar array on the reservoir's roof. The solar array project was completed in December, 2010. Source: *http://sanfrancisco.cbslocal.com/2010/12/07/massive-solar-project-at-sunset-reservoir-completed*, accessed April 20, 2012.

to residents, and is further upgrading the system to broadcast voice instructions for responding to an emergency. Also under development is the 311 City phone service, where callers will get assistance from an agent 24 hours a day, seven days a week, and will provide real-time instructions during an actual emergency. The San Francisco warning system (sirens and loudspeakers, tested each Tuesday at noon) would then be initiated, which would sound an alarm alerting the public to tune into local TV, cable TV, or radio stations, which would carry instructions for appropriate actions to be taken as part of the Emergency Alert System. Police would also canvas the neighborhoods sounding sirens and bullhorns, as well as knocking on doors if needed, to provide emergency instructions. Evacuation centers would be set up if required. The advance warning system would allow for evacuation of people, including those who may be in parks or using recreational facilities, prior to a seiche and would provide a high level of protection to public safety.

Implementation of the CSE Update would have a less-than-significant impact with regard to exposing people or structures to significant risk of loss, injury or death involving inundation by seiche, tsunami, mudflow, or by reservoir failure, as the objective of the proposed objectives and policies are to reduce these potential impacts.

Topics:	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*	*Not Applicable*
16. HAZARDS AND HAZARDOUS MATERIALS—Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	☐
d) 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 it create a significant hazard to the public or the environment?	☐	☐	☒	☐	☐
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, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐	☒

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving fires?	☐	☐	☒	☐	☐

Because San Francisco International Airport is about 8 miles south of the City, topics 6e and 6f are not applicable.

Impact HZ-1: Implementation of the CSE Update would not create a significant hazard through routine transport, use, disposal, handling, or emission of hazardous materials. (Less than Significant)

Policy 1.23 of the CSE Update (which replaces Policy 2.12) would continue to call for the City to "Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases." Homes, businesses and other facilities contain many materials that, if not properly handled, can result in risks to life, health, or the environment. During a disaster, especially an earthquake, such materials could be accidentally released. The materials that generally pose the greatest hazard during a disaster are those that can, in the form of gas, spread and affect large numbers of people; those that are highly flammable or explosive; and those that are highly toxic or are strong irritants. Large earthquakes lead to release of hazardous materials while reducing the ability of emergency personnel to respond. The continued requirement of business and facility emergency plans and local inspections as part of the City's permitting process for hazardous material storage is critical to reducing an overload on public emergency response resources during a major earthquake.

The CSE Update would introduce Policy 1.24 that would call for the City to "Educate [the] public about hazardous materials procedures, including transport, storage and disposal." Hazardous materials include chemical, physical and biological agents. Accidents such as toxic releases from facilities and vehicles, fires and explosions caused by chemical releases, and oil spills in the Bay are not uncommon. FEMA has estimated that an average of 60,000 accidents involving chemicals occur in this country every year, and cause over 200 deaths and many injuries.

Several of the City's agencies provide businesses and residents with information about disposal of hazardous materials. The San Francisco Fire Department is responsible for administering local safety regulations for business operating with hazardous materials, and is the first responder to chemical and hazardous spill accidents, and risk/hazard assessments, capability assessments, and detailed response planning. The San Francisco Department of Public Health enforces State and San Francisco environmental health laws, including hazardous materials storage, issues hazardous materials use permits; investigates illicit discharge and disposal of hazardous materials. The San Francisco Public Utilities Commission provides residents and businesses with

information (through ads and website resources) on how to properly dispose of hazardous materials including waste oils such as motor oil.

Therefore, implementation of the CSE Update would not create a significant hazard through routine transport, use, disposal, handling, or emission of hazardous materials, and impacts would be less than significant.

Impact HZ-2: Implementation of the CSE Update would not create a significant hazard through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant)

Older buildings and other facilities in San Francisco may contain hazardous materials such as asbestos, PCBs and lead. The Planning Department, Department of Public Health, and other responsible agencies may require that a Phase I Environmental Site Assessment ("Phase I ESA") be prepared in conjunction with a specific project to determine the potential for hazardous materials to be present at, within, or beneath the surface of a building or a property. If the Phase I ESA determines a potential for hazardous materials or contamination to exist, further analysis ("Phase II Site Assessment") may be required. As part of a Phase II, soils or materials sampling may be required to test for the presence of hazardous materials. If such materials exist in a building when it is demolished or altered, or if soils are disturbed that may be contaminated, they could pose hazards to workers, neighbors, or the environment. The removal of hazardous building materials, including lead-based paint and asbestos, is regulated by Chapter 34 of the San Francisco Building Code and Section 19827.5 of the California Health and Safety Code, respectively. PCBs are regulated under federal and state law. Byproducts of PCB combustion are known carcinogens and are respiratory hazards, so specific handling and disposal of PCB-containing products is required. PCBs are most commonly found in lighting ballasts, wet transformers, and electrical equipment that uses dielectric fluids. PCBs are also occasionally found in hydraulic fluids.

The San Francisco Department of Public Health (DPH) often acts as the lead agency to ensure proper remediation of leaking underground storage tanks (LUST) sites and other contaminated sites in San Francisco. Local regulations have been enacted to address the potential to encounter hazardous materials in the soil at development sites and the safe handling of hazardous materials (including hazardous wastes). The following sections of the San Francisco Health Code, briefly summarized, could apply to sites to be developed or reused within the City. These include Article 22A (Analyzing the Soil for Hazardous Waste, formerly the Maher Ordinance), Article 21 (Hazardous Materials), Article 21A (Risk Management Program), and Article 22 (Hazardous Waste Management).

An Article 22A investigation is required if: (1) more than 50 cubic yards of soil are to be disturbed, (2) the project site is bayward of the 1851 high-tide line (i.e., in an area of Bay fill), as designated on an official City map, or (3) the site is at any other location in the City designated for investigation by the Director of the SFDPH. The reports are submitted to the Department of Public Works and DPH. Article 22A regulations take effect at the time of the building permit application for projects located on filled land requiring excavation.

Article 21 of the Health Code provides for safe handling of hazardous materials in the City. It requires any person or business that handles, sells, stores, or otherwise uses specified quantities of hazardous materials to keep a current certificate of registration and to implement a hazardous materials business plan. A special permit is required for underground storage tanks. Article 21A of the Health Code provides for safe handling of federally regulated hazardous, toxic, and flammable substances in the City, requiring businesses that use these substances to register with the SFDPH and prepare a Risk Management Plan that includes an assessment of the effects of an accidental release and programs for preventing and responding to an accidental release.

A large disaster could result in the release of hazardous materials and ignition of fires. The CSE Update policies are intended to reduce the extent of these impacts. Policy 1.21 would "Ensure plans are in place to support populations most at risk during breaks in lifelines." As events have repeatedly shown, from the Loma Prieta earthquake in 1989 to Hurricane Katrina in 2005, the most vulnerable populations become even more vulnerable when their lives and communities are disrupted by disasters. Gaps in transit service can drastically impact immobile populations such as the elderly, poor and medically fragile, especially in terms of their access to medical care. Loss of electrical power can also be a problem for homebound, medically dependent individuals. Programs to notify officials, especially power providers, of these individual locations should be developed so that patients who may be unable to help themselves during a power outage or any other emergency can get the necessary support, including continuing medical care for chronic conditions, including delivery of prescription refills.

One such program is the Department of Public Health's Disaster Registry Program (DRP), which lists persons who have registered to indicate they may need special assistance during or after a disaster, such as the elderly and persons with disabilities. This Disaster Registry will be provided to the Fire Department, volunteer Neighborhood Emergency Response Teams (NERT) and other rescue and assistance resources to check on registrants, and provide first aid if required.

Earthquake-initiated hazardous materials releases (EIHRs) are a high risk for industrialized, densely populated urban areas. San Francisco's industrial and research areas store and manufacture limited quantities of hazardous materials; and adjacent uses in close proximity means that more and more people live and work near facilities that may process or store hazardous materials. An earthquake can be the trigger for concurrent hazardous material releases within a small area, and earthquake aftershocks can make hazardous material releases more difficult to stabilize, causing follow-up releases. A study of hazardous material releases during the 1994 Northridge earthquake found that almost 20% of industrial facilities in the area discharged potentially damaging chemicals. Efforts to minimize risk of EIHRs and related accidents are critical aspect of everyday mitigation activities.

Policy 3.12 would call for the City to "Address hazardous material and other spills by requiring appropriate cleanup of property owners per local, state, and federal environmental laws." Accidental spills and releases of hazardous waste or hazardous substances can cause severe damage not only to the environment, but to the public's health. This is a particular issue for other older industrial properties with toxic spill issues as they convert to other uses or forms of development. In cases where environmental damage or hazardous conditions have occurred, the City shall require all property owners and other responsible parties to report spills or leakages and to perform clean up to the level required by local, state, and federal environmental

regulations. Where such parties delay in this required cleanup, the City, working with other regulatory agencies, shall take all measures necessary to ensure the public's health and safety is protected.

Implementation of the CSE Update would not create a significant hazard through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and therefore this impact would be less than significant.

Impact HZ-3: Implementation of the CSE Update would not substantially emit hazardous emissions or acutely hazardous materials to schools. (Less than Significant)

As discussed in HZ-1 above, the CSE Update would not directly create significant hazards as no specific projects are proposed. The exact location and quantity of potential hazardous materials associated with future projects under the context of the CSE Update is unknown. In addition, any future project that could result in physical effects on the environment would require separate environmental review.

Although hazardous materials and waste generated from future construction may pose a health risk to nearby schools, all businesses associated with housing construction that handle or involve on-site transportation of hazardous materials would be required to comply with the provisions of the City's Fire Code and any additional regulations as required in the California Health and Safety Code Article 1 Chapter 6.95 for a Business Emergency Plan, which would apply to those businesses associated with construction activities. Both the federal and state governments require all businesses that handle more than a specified amount of hazardous materials to submit a business plan to a regulating agency. In addition, implementation of federal and state regulations would minimize potential impacts by protecting schools from hazardous materials and emissions. For example, federal regulations such as Resource Recovery and Conservation Act would ensure that hazardous waste is regulated from the time that the waste is generated until its final disposal, and National Emission Standards for Hazardous Air Pollutants would protect the general public from exposure to airborne contaminants that are known to be hazardous to human health. San Francisco's Hazardous Materials Unified Program Agency is responsible for California Uniform Program Authority in the City and would require all businesses (including city contractors) handling hazardous materials to create a Hazardous Materials Business Plan which would reduce the risk of an accidental hazardous materials release.

As describe above in HZ-1, implementation of the CSE Update would not directly require the storage, handling, or disposal of significant quantities of hazardous materials and would not otherwise include emissions of hazardous substances. Therefore, the proposed project would have a less than significant impact related to hazardous emissions or materials within a quarter mile of a school.

Impact HZ-4: Implementation of the CSE Update would not expose people or structures to a significant risk of loss, injury, or death involving fires, and would not interfere with the implementation of an emergency response plan. (Less than Significant)

The purpose of the CSE is to reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. The CSE focuses on seismic hazards because the greatest risks to life and property in San Francisco result

directly from ground shaking, ground failure, and other impacts associated with large earthquakes. Other hazards common in other California communities, such as inundation, landslides, hazardous materials releases, and fire, are most likely to occur in San Francisco in association with an earthquake, and are addressed in that capacity. Additionally, other hazards, particularly man-made hazards, pose threats to the City's health and welfare.

The CSE establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. Implementation of the CSE is carried out through a number of City plans and programs, as described below- most specifically the City's Hazard Mitigation Plan - as well as by agencies and entities.

Objective 1 of the CSE Update (which would replace Object 2) would call for the City to "Reduce Structural and non-structural hazards to life safety and minimize property damage resulting from future disasters." Most earthquake-related deaths and injuries will result from the failure of buildings and other structures as a result of shaking or ground failure. Damage to structures results in substantial economic losses and severe social, cultural and economic dislocations. In addition to the characteristics of the earthquake and of the site, a structure's performance will depend on structural type, materials, design, and quality of construction and maintenance. The hazards posed by buildings and other structures can be reduced by assuring that all structures achieve performance that meet acceptable safety levels, by learning more about the risks posed by vulnerable structures and developing plans to reduce those risks, and by including a consideration of natural hazards in all land use, infrastructure, and public capital improvement planning.

San Francisco ensures fire safety and emergency access within new and existing developments by its building and fire codes. These codes require projects to conform to their standards, which may include development of an emergency procedure manual and an exit drill plan for specific developments, as applicable. Potential fire hazards would be addressed during the permit review process for a specific undertaking. Conformance with these standards would ensure appropriate life safety protections.

Policy 1.13 (which would replace Policy 2.5) would call for the City to "Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks." Non-ductile concrete frame buildings perform poorly in earthquakes, and buildings of these types exist in San Francisco but have not been inventoried. Non-ductile concrete frame buildings were constructed as factories, warehouses, or office buildings in the densest parts of the City until the San Francisco Building Code was changed in 1976 to require ductility. ABAG estimated that more than 30% of the commercial building stock and more than 50% of the industrial building stock is concrete, with an unknown but large number of these being non-ductile concrete. Because of their larger size and central location, non-ductile concrete frame buildings are often converted to new uses such as offices or residential units. Such conversions provide opportunities to eliminate the possibility of collapse during major earthquakes. Standards for the evaluation and retrofit of non-ductile concrete buildings exist, but the engineering is more complicated and the retrofit is generally more disruptive and expensive than it is for other vulnerable structure types. To assists private property owners in retrofitting non-ductile concrete buildings, the City should explore the development of a standard list of recommendations for retrofits, and dissemination of retrofit information. As these

older buildings are often converted to new uses such as offices or residential units, the City should also encourage retrofits with conversions.

Pre-cast concrete tilt-up buildings built before 1973 have performed poorly in the 1971 San Fernando, 1989 Loma Prieta, and 1994 Northridge earthquakes. There are believed to be relatively few of these buildings in San Francisco, and many are used as warehouses with few occupants, but they have not been carefully inventoried.

Policy 1.14 (which would replace Policy 2.6) would call for the City to "Reduce the earthquake and fire risks posed by older small wood-frame residential buildings." San Francisco's current programs for UMB and soft-story wood-frame buildings only apply to larger scale and commercial structures. Individual homes or buildings under 5 units are not required to be seismically strengthened, and therefore exist at varying levels of risk. Some individual homeowners make upgrades to their buildings voluntarily, but that number could be substantially increased with more programs designed to encourage homeowners to make safety improvements. "Soft-story" buildings, in which the ground story has much less rigidity and/or strength than the rest of the structure, pose significant hazards. Often the soft story is the result of multiple garage door openings or "tuckunder" parking. Soft-story collapses resulted in deaths in both the 1989 Loma Prieta and 1994 Northridge earthquakes.

These deficiencies can be fixed relatively easily and inexpensively, substantially reducing life safety hazards and the likelihood that the building will sustain substantial damage in an earthquake. There are currently no requirements to undertake this work, although many owners do so voluntarily. Insurance companies sometimes encourage or require upgrade as a condition of providing insurance. The State of California requires sellers of homes built before 1960 to disclose the existence of a series of common weaknesses, including lack of foundation bolts and water heater bracing, and to provide a copy of the state publication, the Homeowners Guide to Earthquake Safety. This law does not require sellers to fix these deficiencies. The City of Berkeley has a program which rebates a portion of the City's real estate transfer tax, if the money is applied to the mitigation of seismic hazards. This program has funded over 1,700 retrofits since it began in 1993. The City of San Leandro has published guidelines, and provides technical assistance to encourage owners of small wood-frame homes to reduce their seismic risks.

The City should adopt incentives and regulations to encourage relatively simple retrofit approaches that increase the structural stability and safety of smaller wood frame residential buildings, as well as consider a phased mandate for retrofits over a 30-year timeframe. The City's Soft Story Wood-Frame Seismic Hazard Reduction Program establishes an inventory of buildings with five or more units and notifies their owners of their risk. Future phases of the program should require mandatory strengthening of larger soft story buildings. However, this strengthening may be financially difficult for homeowners, and they may not be aware of potential funding sources. The City should develop a funding "menu" with information about potential sources from loans to Mello-Roos[62] districts, to assist building owners in making upgrades.

[62] A Mello-Roos District is an area where a special *property tax* on real estate, in addition to the normal property tax, is imposed on those *real property* owners within a Community Facilities District. These districts seek public financing through the sale of *bonds* for the purpose of financing public improvements and services.[4] These services may include

Policy 1.23 (which would replace Policy 2.12) would call for the City to "Reduce hazards from gas fired appliances and gas lines." A large earthquake is likely to result in fires at a time when the water systems may be disrupted and personnel needed to fight fires may be overtaxed. One of the sources of ignition will be gas leaks from appliances. As a result of its experience in the 1994 Northridge earthquake, Los Angeles now requires installation of seismic gas shut-off valves in new buildings, in renovations over $10,000 and on transfer of ownership. The City may also encourage or require, as done in Los Angeles, the installation of shut-off valves in certain limited building types which are activated only by a major seismic shaking.

Implementation of the CSE Update would also not interfere with an emergency response plan. Objective 3 would "Establish strategies to address the immediate effects of a disaster." The first days after a major earthquake or other large disaster make up the response phase. Immediate response will focus on saving life and property damaged by the disaster. The City has a network of emergency response strategies in place. The City's Emergency Response Plan is the primary source which will direct the City's response in the case of a disaster, and describes specific responses to be undertaken by the emergency response agencies and other supporting City departments toward the recovery process, such as emergency building assessment and repairs, debris removal, and meeting the immediate needs of federal and state agencies for information. The City is also leading a Bay Area-wide planning effort to create a disaster plan for the nine county Bay Area plus Santa Cruz, which will detail how the counties will work together to respond to a disaster, including evacuation, housing and transportation. Relief activities to provide aid for the population left in its wake will follow response activities. These include securing food and shelter for victims, and stabilization of day-to-day conditions for the area's remaining residents. Economic welfare, social networks, and emotional well being are as critical as the City's physical infrastructure to the City's long-term recovery.

Implementation of the CSE Update would not expose people or structures to a significant risk of loss, injury, or death involving fires, and would not interfere with the implementation of an emergency response plan. Therefore this impact would be less than significant.

Impact HZ-5: Implementation of the CSE Update would not direct development that could 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, the CSE Update would not create a significant hazard to the public or the environment. (Less than Significant)

The Hazardous Waste and Substances Sites (Cortese) list is a tool used by the State and local agencies and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (EPA) to develop an updated Cortese List at least annually.

The City contains sites that have been identified as being contaminated from the release of hazardous substances in the soil, including industrial sites, sites containing leaking underground storage tanks, and large and small-quantity generators of hazardous wastes. The CSE Update, as

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streets, water, sewage and drainage, electricity, infrastructure, schools, parks and police protection to newly developing areas. The tax paid is used to make the payments of principal and interest on the bonds.

a policy document, does not include any specific projects, and thus does not include any new development or construction on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5. Future projects that could be developed in the context of the CSE Update would be subject to a project-level environmental review. Therefore, implementation of the CSE Update would have a less than significant impact with respect to hazardous materials sites.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
17. MINERAL AND ENERGY RESOURCES— Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☒
b) 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?	☐	☐	☐	☐	☒
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	☐	☐	☒	☐	☐

All land in the City is designated Mineral Resource Zone 4 (MRZ-4) by the California Division of Mines and Geology (CDMG) under the Surface Mining and Reclamation Act of 1975.[63] This designation indicates that there is inadequate information available for assignment to any other MRZ and therefore the City is not a designated area of significant mineral deposits. No area within the City is designated as a locally-important mineral resource recovery site. Accordingly, topic 17a and 17b are not applicable.

Impact ME-1: The CSE Update would not result in the use of large amounts of fuel, water or energy, or use these resources in a wasteful manner. (Less than Significant)

Future projects that could be developed in the context of the CSE Update could use energy produced in regional power plants using hydropower and natural gas, coal and nuclear fuels. New buildings in San Francisco are required to conform to energy conservation standards specified by Title 24 of the California Code of Regulations. Documentation showing compliance with these standards is submitted with the application for a building permit. Title 24 is enforced by the Department of Building Inspection.

Pursuant to the San Francisco Green Building Ordinance (No. 180-08), all new municipal buildings in the City are required to obtain US Green Building Council Leadership in Energy and Environmental Design (LEED) Silver Certification. This certification system could require future projects to incorporate best management practices in sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality where feasible. Policy 1.11 of the CSE Update calls for the City to "Continue to promote green stormwater

63 California Division of Mines and Geology, Open File Report 96-03 and Special Report 146 Parts I & II.

management techniques." Given that future projects would be required to adhere to Title 24 provisions as well as the Green Building Ordinance, implementation of the draft Community Safety Element Update would have a less-than-significant impact on energy use.

Topics:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
18. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **—Would the project**					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined by Public Resources Code Section 4526)?	☐	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	☐	☐	☐	☐	☒

Impact AG-1: The CSE Update would not conflict with zoning for agricultural use, result in the loss of forest land, or otherwise convert farmland or forest land to non-agricultural or non-forest use. (Not Applicable).

The City and County of San Francisco is located within an urban area, which the California Department of Conservation's Farmland Mapping and Monitoring Program identifies as Urban and Built-Up Land, defined as "... land [that] is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes."

The project site does not contain agricultural uses and is not zoned for such uses. Implementation of the CSE Update would not convert any prime farmland, unique farmland or Farmland of Statewide Importance to non-agricultural use. It would not conflict with existing zoning for agricultural land use or a Williamson contract, nor would it involve any changes to the environment that could result in the conversion of farmland. Accordingly, Initial Study Checklist Topics 17a, 17b, 17c, 17d, and 17e are not applicable to the CSE Update.

Topics:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Not Applicable
19.	MANDATORY FINDINGS OF SIGNIFICANCE—Would the project:					
a)	Have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐	☐
b)	Have impacts that would be individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐	☐
c)	Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐	☐

The preparers of the Initial Study have discussed all of the environmental issue areas required by Section 15063 of the CEQA Guidelines and have found either no impact or less than significant impacts in all issue areas related to the adoption of the General Plan Community Safety Element. The Community Safety Element is a policy document that consists of general objectives and policies to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. The proposed project would not result in cumulative impacts to land use, aesthetics, population and housing, cultural resources, transportation, noise, air quality, greenhouse gas emissions, wind and shadow, recreation, utilities, public services, biological resources, geology, hydrology, hazardous materials, mineral resources, and agricultural resources. The proposed project would not have unavoidable environmental effects that are cumulatively considerable, and would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

G. PUBLIC NOTICE AND COMMENT

A "Notification of Project Receiving Environmental Review" was mailed on March 7, 2012, to interested parties. No comments were received.

H. DETERMINATION

On the basis of this Initial Study:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

DATE May 24, 2012

Bill Wycko
Environmental Review Officer
for
John Rahaim
Director of Planning

I. INITIAL STUDY PREPARERS

Planning Department, City and County of San Francisco

Environmental Planning

1650 Mission Street, Suite 400

San Francisco, CA 94103

Environmental Review Officer: Bill Wycko

Environmental Planner: Don Lewis

Re: BOS Land Use Hearing: File 120463 (Community Safety Element)
Steve Lawrence to: Alisa.Miller 09/17/2012 01:07 PM

History: This message has been replied to.

More words that fail to tell me what this is all about.

You giving notice that an ordinance is proposed. Fine; understood. About what? It updates the 2012 Community Safety Element. How about saying why that needs updating, what it is, and what the update does? You could provide a link, preferably after saying a little about what this is all about.

Your email back to me defensively says you have complied with legal requirements. I'm not doubting that. But you still aren't telling the reader what it's all about. This is why I say the notice is empty. The purpose of giving the notice is to inform the interested public. Not just to satisfy a legal requirement. So tell the public what this ordinance is about. Link to the proposed ordinance. Link to the 2012 Community Safety Element that the ordinance is updating.

On 9/17/2012 9:56 AM, Alisa.Miller@sfgov.org wrote:

> Mr. Lawrence,
>
> You were notified of the hearing for File No. 120463 (General Plan, Community Safety Element) pursuant to Government Code 65092(a) & 65355 - a 10-day mailed notice to all interested parties from the list provided by the Planning Department. All General Plan Amendments are noticed in the newspaper and mailed 10 days in advance of the Committee Hearing. The attached notice satisfies the requirement to provide the date, time, place, and explanation of the proposed legislation for the hearing.

Alisa Miller
Assistant Clerk
Board of Supervisors
1 Dr. Carlton B. Goodlett Place, City Hall, Room 244
San Francisco, CA 94102
Phone: (415) 554-4447 | Fax: (415) 554-7714
alisa.miller@sfgov.org | www.sfbos.org

Complete a Board of Supervisors Customer Satisfaction form by clicking the following link:
http://www.sfbos.org/index.aspx?page=104.

From: Steve Lawrence <splawrence@sbcglobal.net>
To: Alisa.Miller@sfgov.org,
Date: 09/15/2012 04:24 PM
Subject: Re: BOS Land Use Hearing: File 120463 (Community Safety Element)

This fails to tell the reader much of anything. It is yet another example of empty formality and artificial transparency. You should reform!

On 9/14/2012 11:24 AM, Alisa.Miller@sfgov.orgwrote:
On September 24, 2012, the Board of Supervisors' Land Use and Economic Development Committee will hold a public hearing to consider File No. 120463 (2012 Community Safety Element). Attached for your information is the hearing notice.

If you have any questions or require additional information, please contact me directly. The agenda and packet for this meeting will be available online on Friday, September 21st at: http://sfbos.org/meeting.aspx?page=720

Alisa Miller
Assistant Clerk
Board of Supervisors
1 Dr. Carlton B. Goodlett Place, City Hall, Room 244
San Francisco, CA 94102
Phone: (415) 554-4447 | Fax: (415) 554-7714
alisa.miller@sfgov.org| www.sfbos.org

Complete a Board of Supervisors Customer Satisfaction form by clicking the following link: http://www.sfbos.org/index.aspx?page=104.

BOARD of SUPERVISORS

City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco 94102-4689
Tel. No. 554-5184
Fax No. 554-5163
TDD/TTY No. 554-5227

NOTICE OF PUBLIC HEARING

LAND USE & ECONOMIC DEVELOPMENT COMMITTEE

SAN FRANCISCO BOARD OF SUPERVISORS

NOTICE IS HEREBY GIVEN THAT the Land Use and Economic Development Committee will hold a public hearing to consider the following proposal and said public hearing will be held as follows, at which time all interested parties may attend and be heard:

Date: **Monday, September 24, 2012**

Time: **1:00 p.m.**

Location: **Committee Room 263 located at City Hall**
1 Dr. Carlton B. Goodlett Place, San Francisco, CA

Subject: **File No. 120463.** Ordinance amending the San Francisco General Plan by adopting the 2012 Community Safety Element update; and making findings, including environmental findings and findings of consistency with the General Plan and Planning Code Section 101.1(b).

In accordance with Section 67.7-1 of the San Francisco Administrative Code, persons who are unable to attend the hearing on this matter may submit written comments to the City prior to the time the hearing begins. These comments will be made a part of the official public record and shall be brought to the attention of the members of the Committee. Written comments should be addressed to Angela Calvillo, Clerk of the Board, Room 244, City Hall, 1 Dr. Carlton Goodlett Place, San Francisco, CA 94102. Information relating to the proposed legislation is available in the Office of the Clerk of the Board and agenda information relating to this matter will be available for public review on Friday, September 21, 2012.

Angela Calvillo, Clerk of the Board

DATED: September 13, 2012
PUBLISHED/POSTED: September 14, 2012

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Alisa Miller
S.F. BD OF SUPERVISORS (OFFICIAL NOTICES)
1 DR CARLTON B GOODLETT PL #244
SAN FRANCISCO, CA 94102

EXM 2379101

COPY OF NOTICE

Notice Type: GPN GOVT PUBLIC NOTICE

Ad Description AM - 120463 General Plan Notice

To the right is a copy of the notice you sent to us for publication in the SAN FRANCISCO EXAMINER. Thank you for using our newspaper. Please read this notice carefully and call us with ny corrections. The Proof of Publication will be filed with the County Clerk, if required, and mailed to you after the last date below. Publication date(s) for this notice is (are):

09/14/2012

The charge(s) for this order is as follows. An invoice will be sent after the last date of publication. If you prepaid this order in full, you will not receive an invoice.

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NOTICE OF PUBLIC HEARING LAND USE & ECONOMIC DEVELOPMENT COMMITTEE SAN FRANCISCO BOARD OF SUPERVISORS MONDAY, SEPTEMBER 24,2 012 - 1:00 PM COMMITTEE ROOM 263, CITY HALL 1 DR.C ARLTON B.G OODLETT PLACE,S AN FRANCISCO, CA

NOTICE IS HEREBY GIVEN THAT the Land Use and Economic Development Committee will a hold a public hearing to consider the following proposal, at which time all interested parties may attend and be heard. **File No. 120463.** Ordinance amending the San Francisco General Plan by adopting the 2012 Community Safety Element update; and making findings, including environmental findings and findings of consistency with the General Plan and Planning Code Section 101.1(b). In accordance with Section 67.7-1 of the San Francisco Administrative Code, persons who are unable to attend the hearing on this matter may submit written comments to the City prior to the time the hearing begins. These comments will be made a part of the official public record and shall be brought to the attention of the members of the Committee. Written comments should be addressed to Angela Calvillo, Clerk of the Board, Room 244, City Hall, 1 Dr. Carlton Goodlett Place, San Francisco, CA 94102. Information relating to the proposed fee is available in the Office of the Clerk of the Boarda nda gendai nformation relating to this matter will be available for public review on Friday, September 21, 2012. Angela Calvillo, Clerk of the Board