

File No. 170135

Committee Item No. 4

Board Item No. _____

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee: Government Audit and Oversight
Board of Supervisors Meeting

Date: April 5, 2017

Date: _____

Cmte Board

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

OTHER

(Click the text below for a direct link to the document)

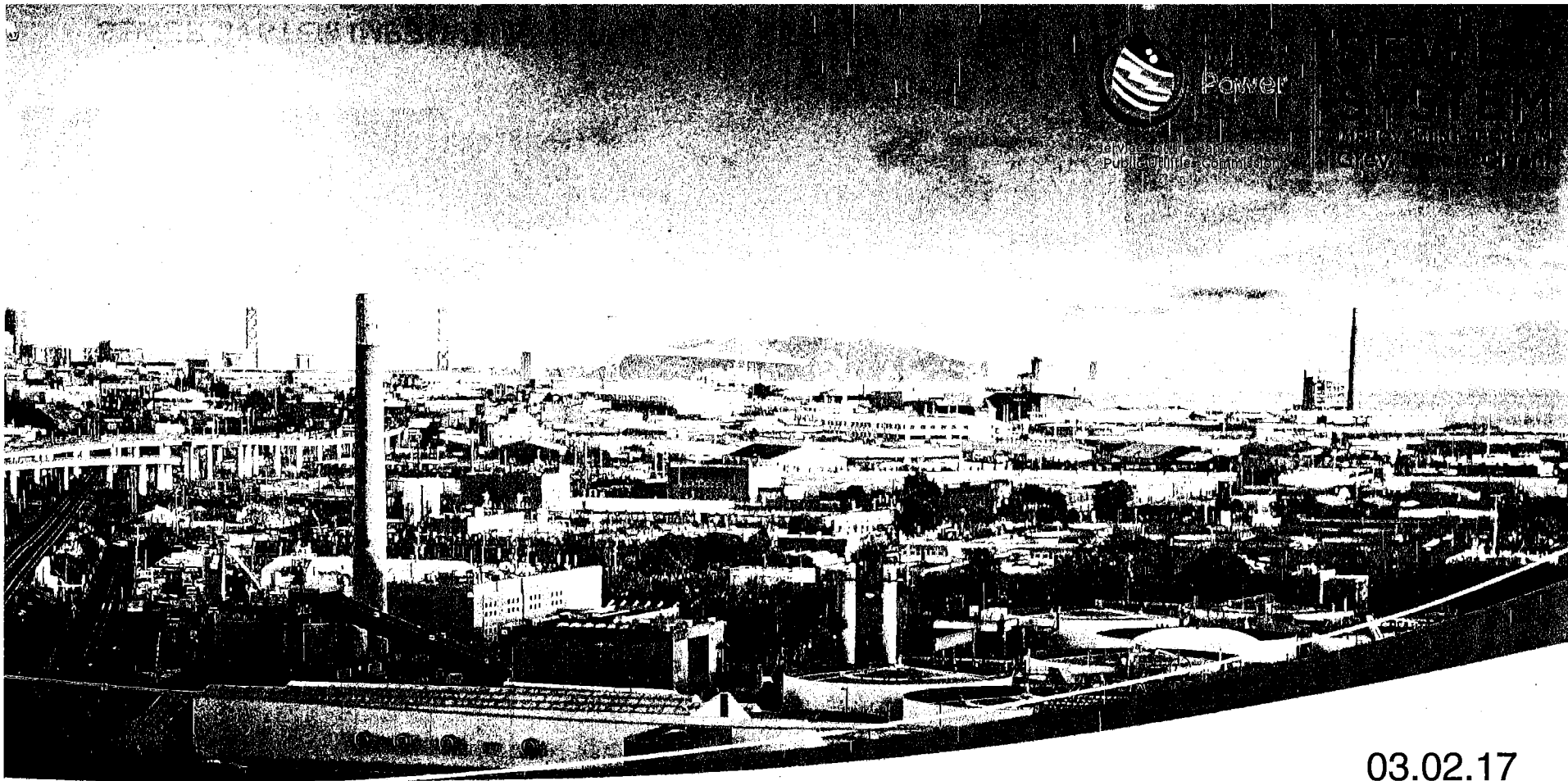
- | | | |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <u>SFPUC March 2, 2017 Committee Presentation Slides</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <u>Referral FYI - February 6, 2017</u> |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Prepared by: John Carroll

Date: March 30, 2017

Prepared by: _____

Date: _____



03.02.17

Hearing - San Francisco Public Utilities Commission Sewer System Improvement Program

Karen Kubick, Wastewater Enterprise Capital Program Director

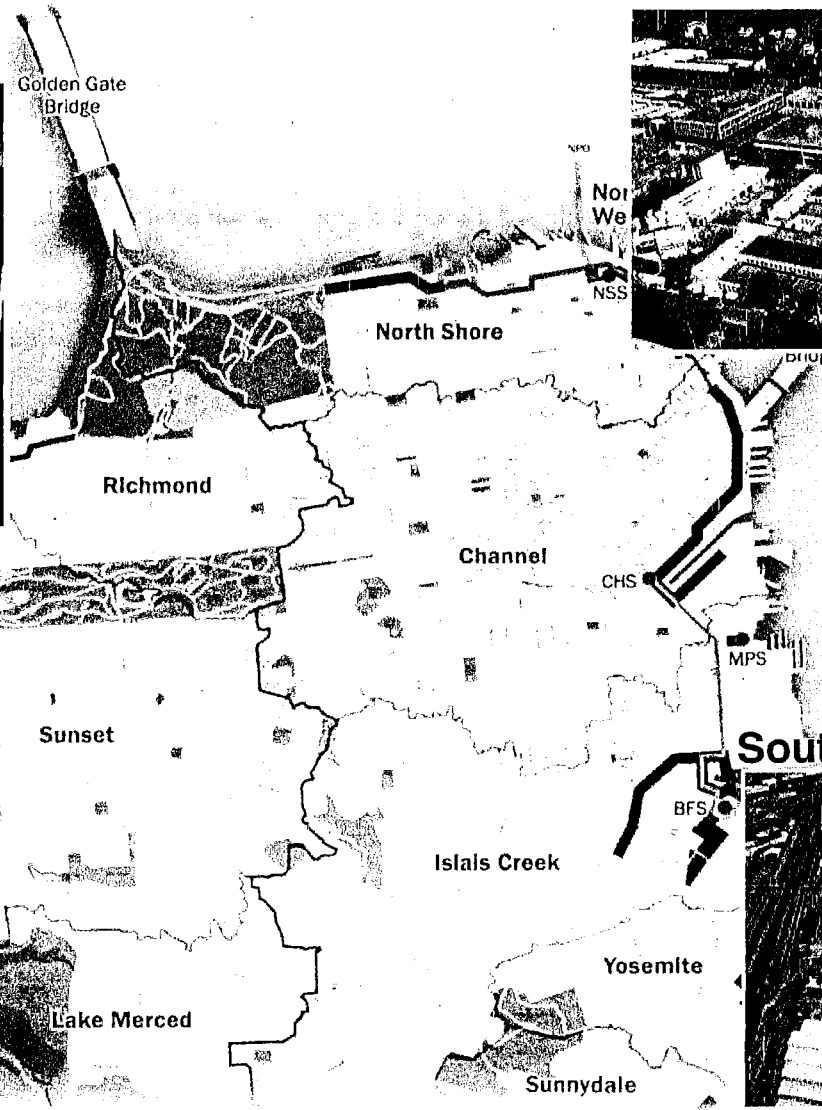
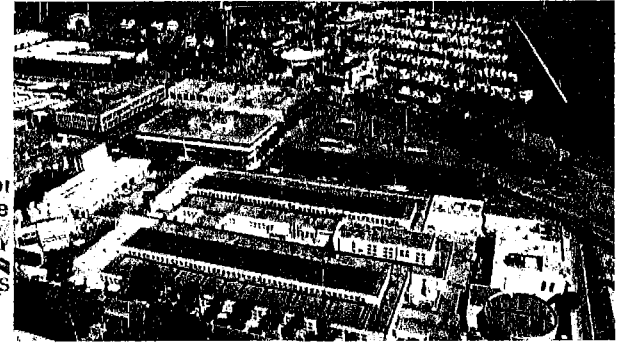
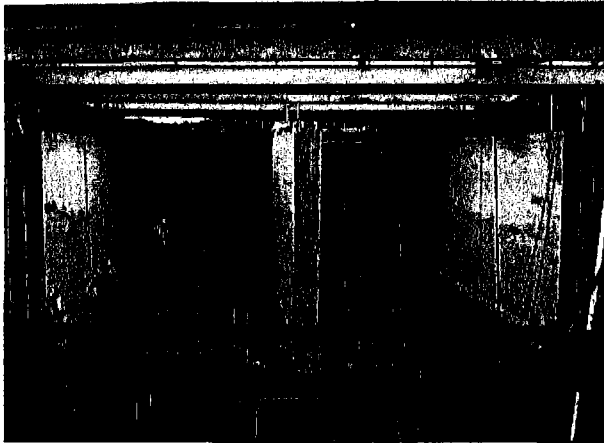
SF BOS: Government Audit & Oversight Committee

FILE 161184
S08117700 3/2/2017

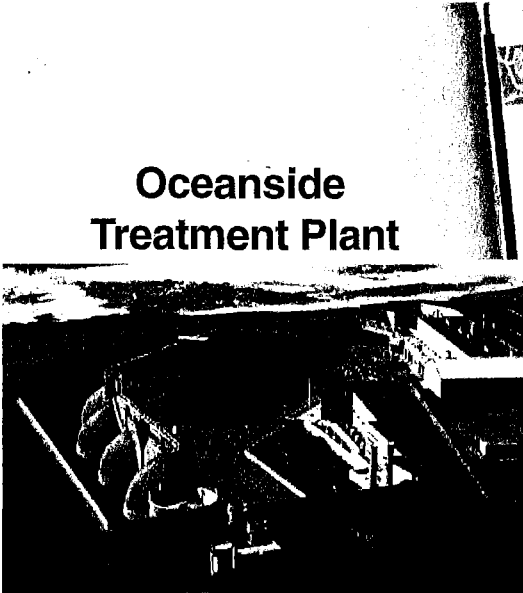
Our Combined Sewer System

North Point Wet Weather Facility

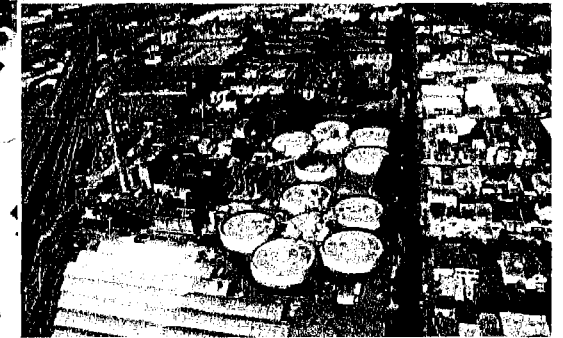
Transport/Storage Structure



Oceanside Treatment Plant

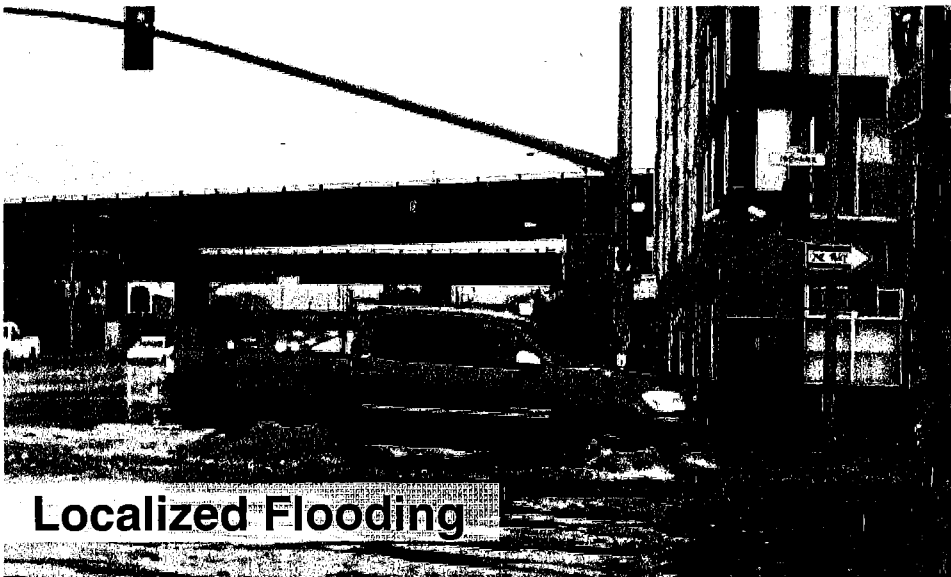
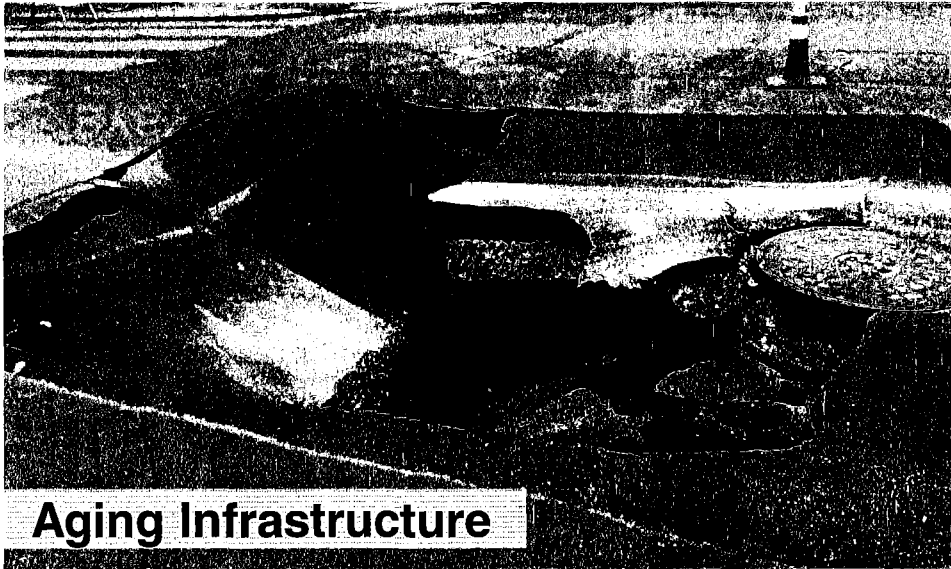


Southeast Treatment Plant



SEWER SYSTEM IMPROVEMENT PROGRAM | Grey. Green. Clean.

Some of Our Priority Challenges



Sewer System Improvement Program (SSIP)

Grey.

Green.

Clean.



**SYSTEM AND SEISMIC
RELIABILITY &
REDUNDANCY**



**INNOVATIVE
STORMWATER
MANAGEMENT SOLUTIONS**



**PROTECTING PUBLIC
HEALTH
& THE ENVIRONMENT**

SSIP's Levels of Service Goals



Provide a Compliant, Reliable, Resilient, & Flexible System that can Respond to Catastrophic Events



Integrate Green & Grey Infrastructure to Manage Stormwater and Minimize Flooding



Provide Benefits to Impacted Communities



Modify the System to Adapt to Climate Change



Achieve Economic & Environmental Sustainability



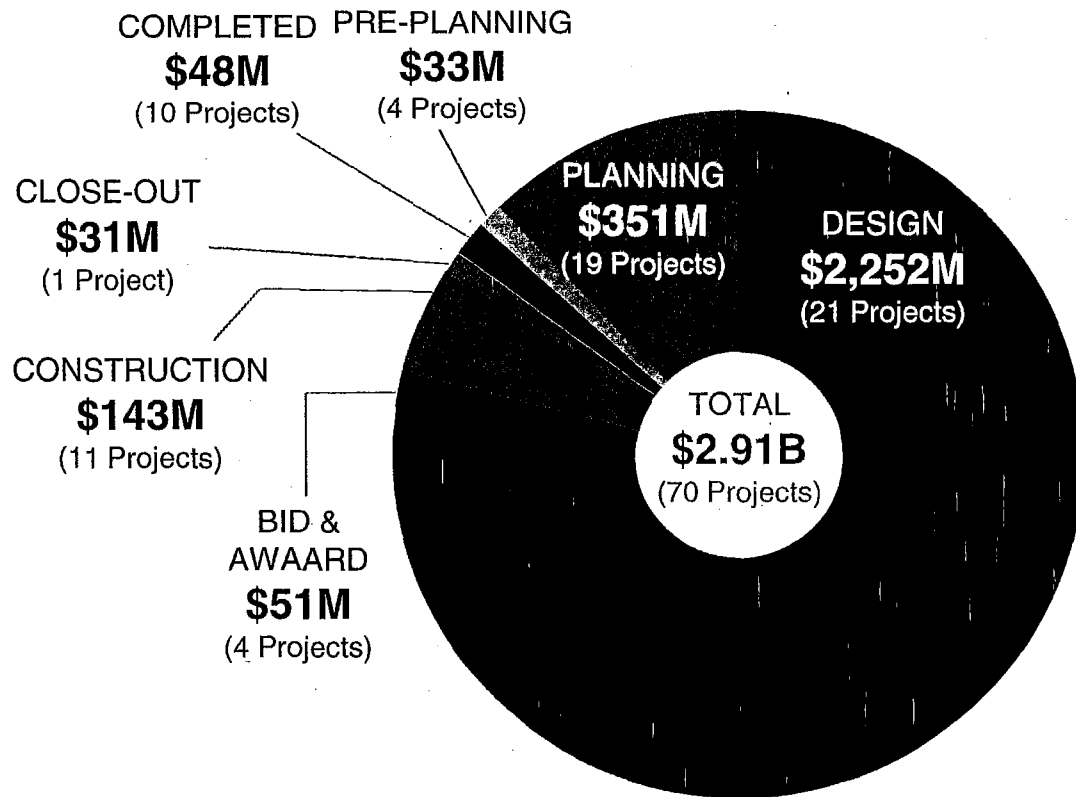
Maintain Ratepayer Affordability

SSIP Overall Budget

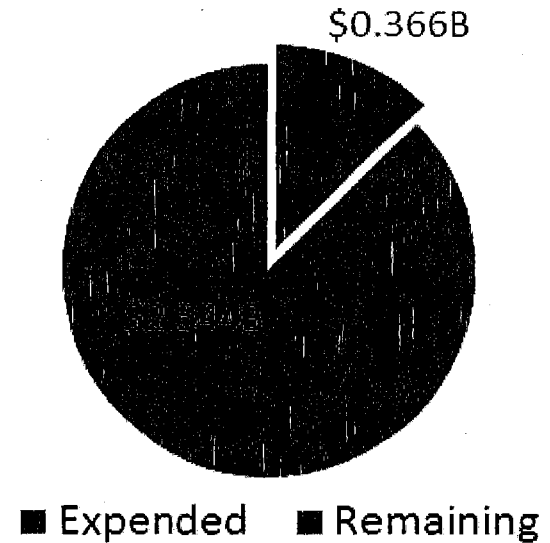
Subprograms	Phase 1 (\$M)	Phase 2 (\$M)	Phase 3 (\$M)	Total Cost (\$M)
TREATMENT PLANTS	2,182	1,299	407	3,888
Biosolids Digester Facilities Project	1,276	47	-	1,323
SEP New Headworks Facility	359	-	-	359
Southeast Treatment Plant (SEP) Improvements	327	711	103	1,141
Oceanside Treatment Plant (OSP) Improvements	133	214	104	451
North Point Wet Weather Facility (NPF) Improvements	87	327	200	614
COLLECTION SYSTEM	505	1,689	476	2,670
Central Bayside System Improvement Project	64	782	-	846
Large Sewers/Tunnels/Odor Control Upgrades	58	131	-	189
Interdepartmental Projects	96	44	-	140
Pump Stations and Force Main Improvements	76	214	188	478
Combined Sewer Discharge & Transport/Storage Boxes	27	138	120	285
Stormwater Management Projects	96	180	168	444
Flood Resilience Projects	88	200	-	288
Land Reuse	98	-	-	98
Program Management	125	152	43	320
Total SSIP	2,910	3,140	926	6,976

SSIP Phase 1 Status *(as of December 2016)*

Project Count by Phase



Expenditures (\$)

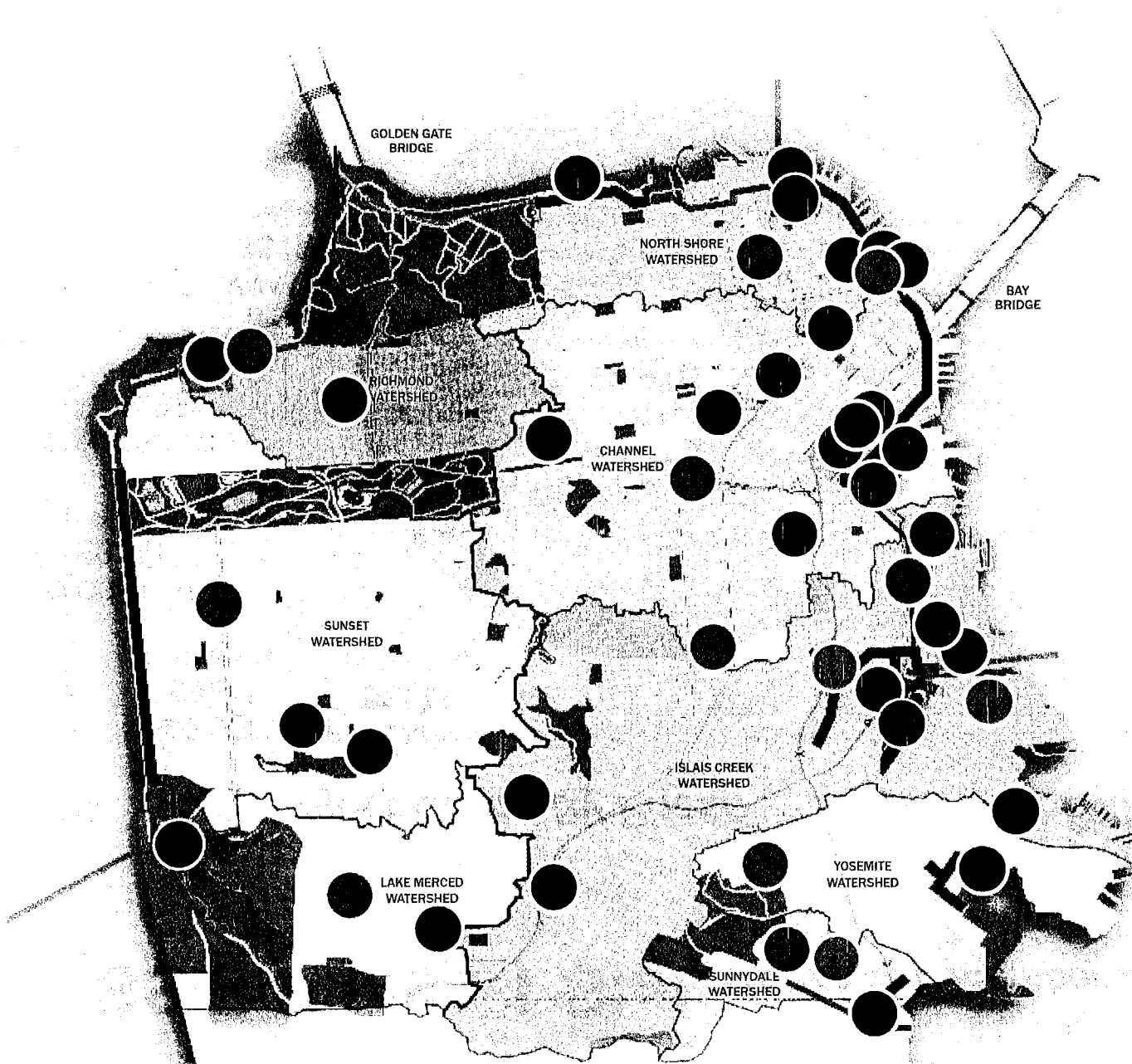


% Complete



16% of Phase 1 Projects

SSIP Phase 1 Projects | \$2.9 Billion



- Treatment Plants
- Central Bayside System Improvement Project
- Green Stormwater Management Projects
- Large Sewers, Tunnels, and Odor Control
- Pump Stations and Force Main Improvements
- Flood Resilience Projects
- Combined Sewer Discharge Structures & Transport/Storage Boxes
- Interdepartmental Projects

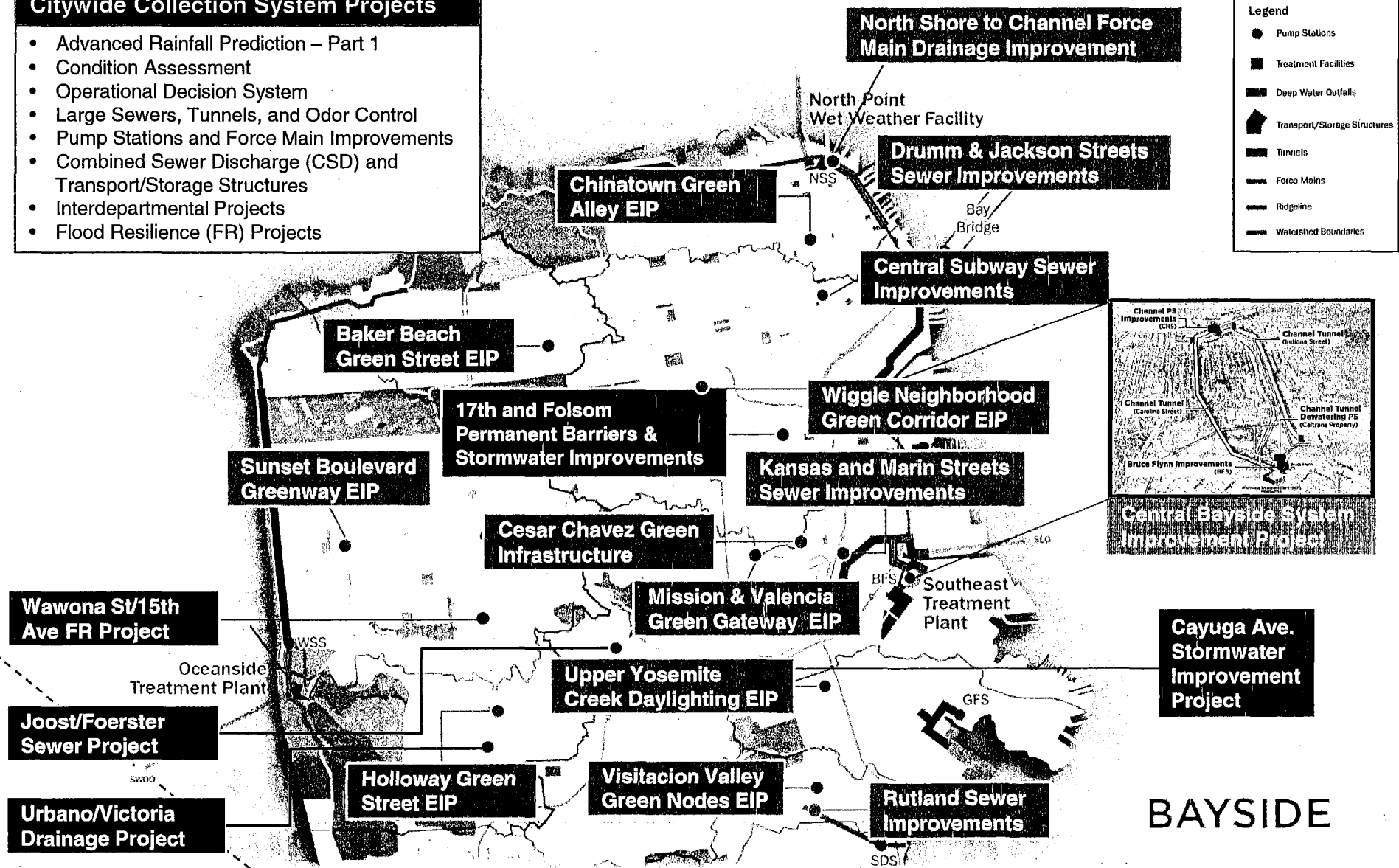
Collection System Upgrades

Citywide Collection System Projects

- Advanced Rainfall Prediction – Part 1
- Condition Assessment
- Operational Decision System
- Large Sewers, Tunnels, and Odor Control
- Pump Stations and Force Main Improvements
- Combined Sewer Discharge (CSD) and Transport/Storage Structures
- Interdepartmental Projects
- Flood Resilience (FR) Projects

Legend

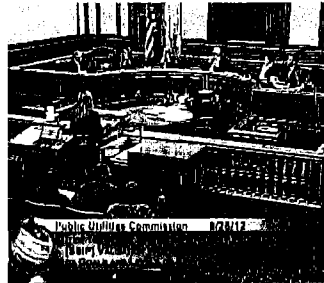
- Pump Stations
- Treatment Facilities
- Deep Water Outfalls
- Transport/Storage Structures
- Tunnels
- Force Mains
- Riggoline
- Watershed Boundaries



Recent History of Southeast Treatment Plant (SEP) Projects

2012

Program Validation and authorization of SSIP Phase 1



Sewer System Improvement Program (SSIP)



2010-2011

Southeast Digester Task Force Report & Resolution recommending location

TO DATE

2013-2017

- Performed Condition Assessment
- Issued Design & Construction Contracts for: Headworks & Biosolids
- SSIP Baseline: Phase 1 is \$2.9B

FUTURE

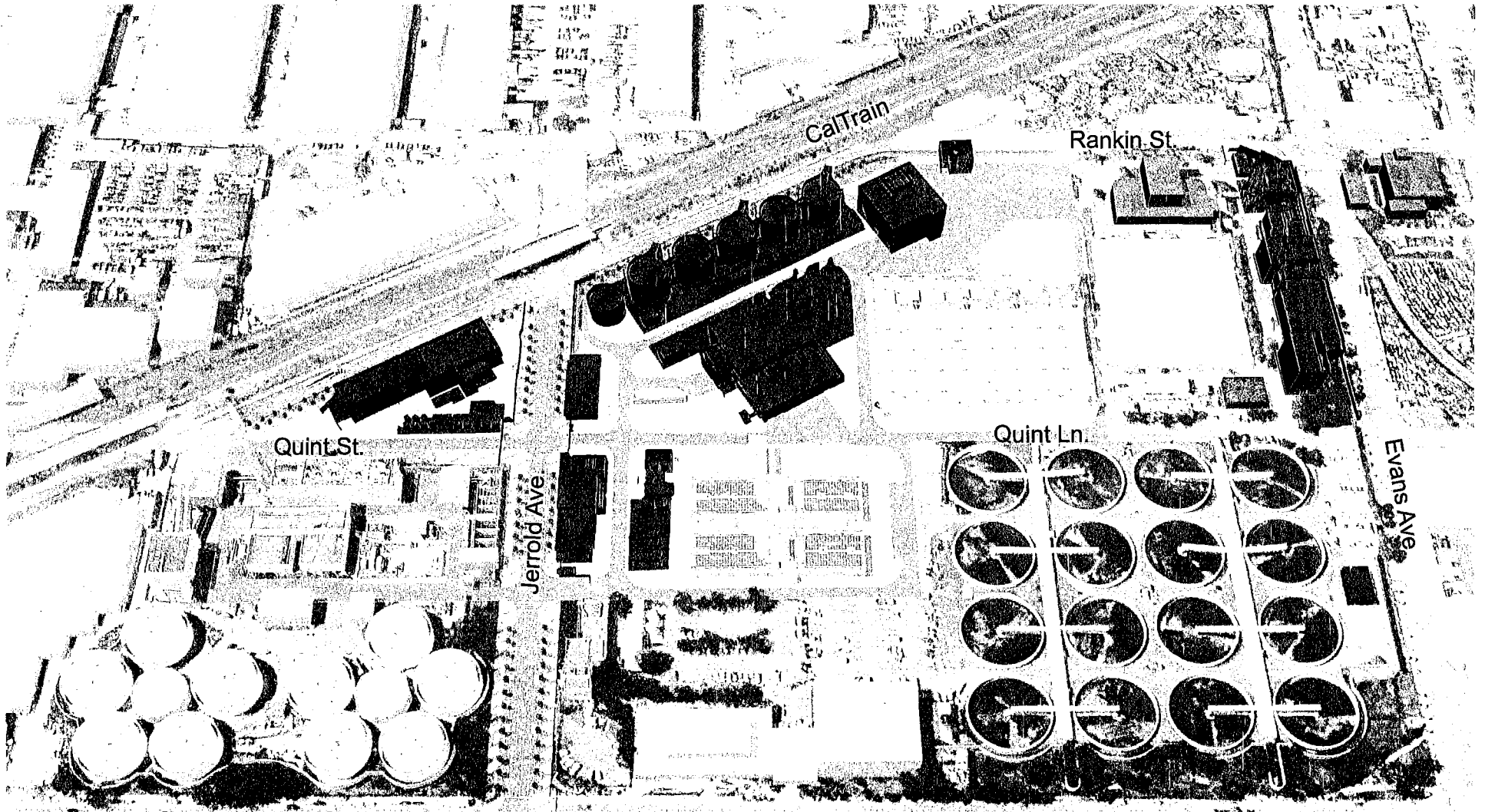
2017 & 2018

- Begin Headworks Construction
- Begin Biosolids Construction
- Continue construction of other SEP reliability upgrades

SEP Challenges



Major SEP Projects



LEGEND

SEP 521/522 & Disinfection Upgrades

Power Feed & Primary Switchgear Upgrades

Headworks Facility

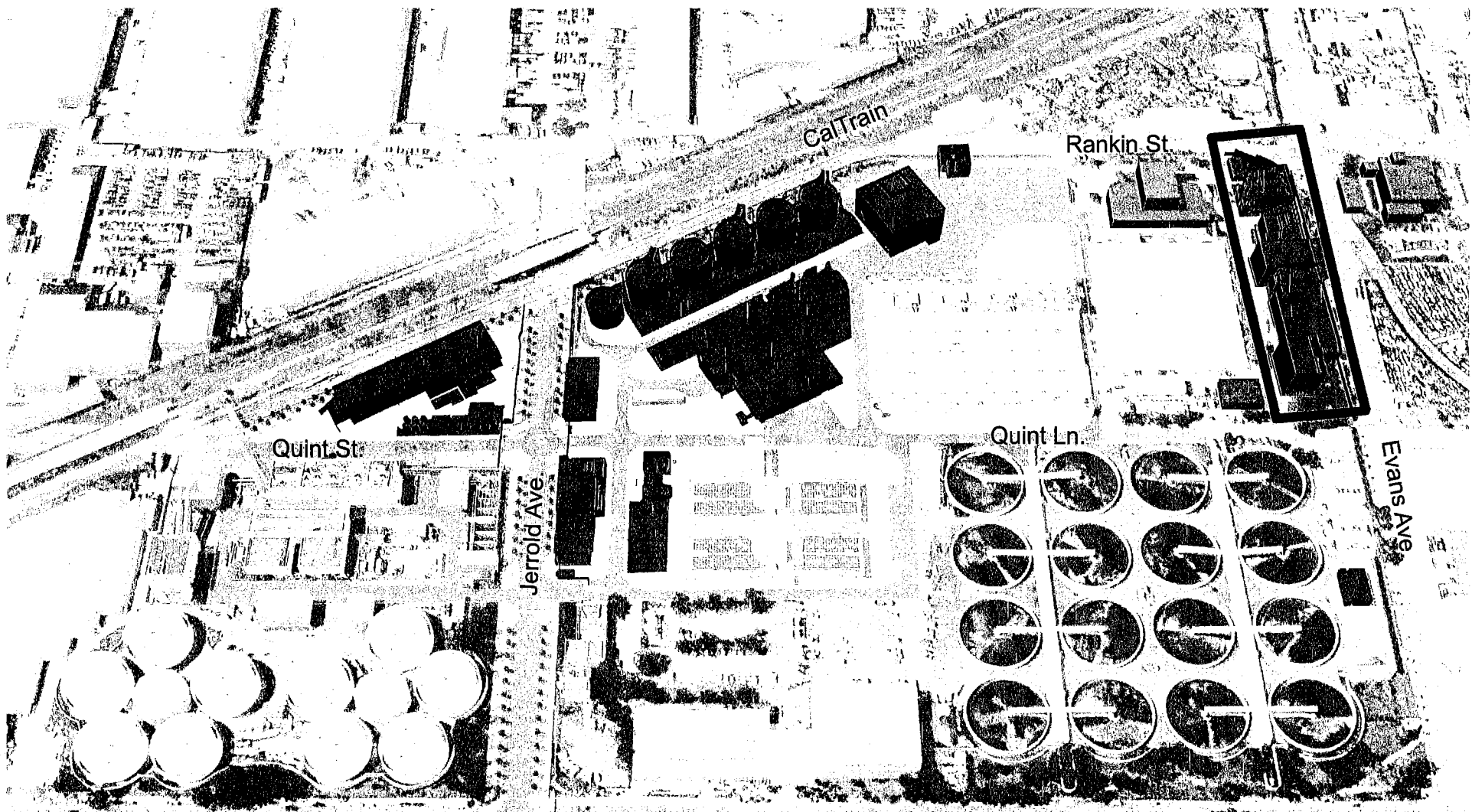
Biosolids Digester Facilities Project (BDFP)







**SEWER
SYSTEM**
IMPROVEMENT PROGRAM
Grey. Green. Clean.

HEADWORKS FACILITY PROJECT

Headworks Facility Project Location

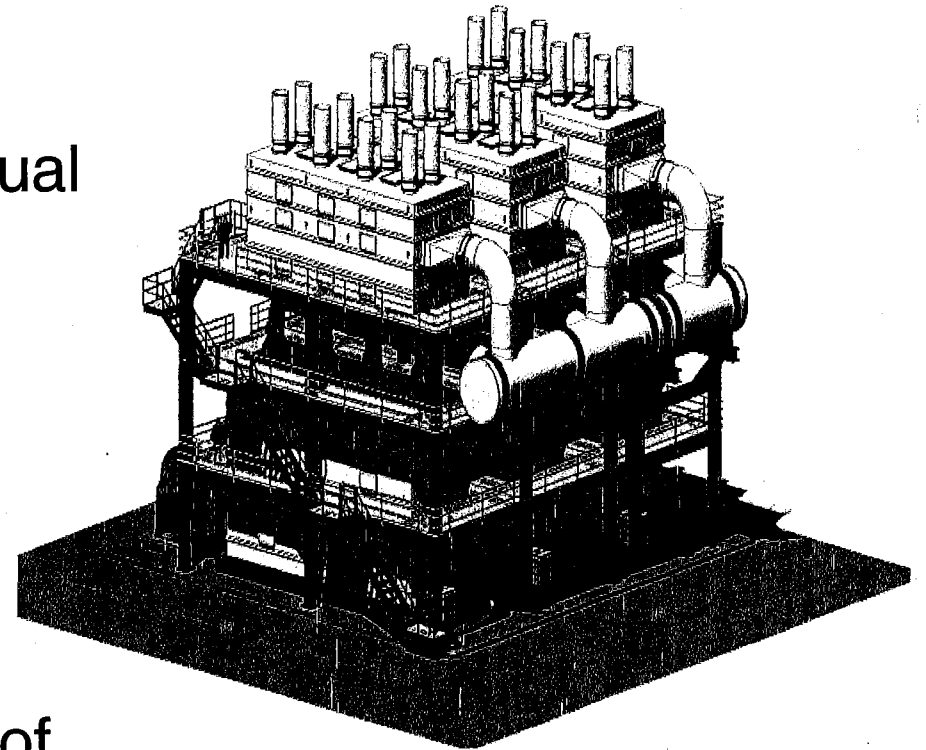


LEGEND

 SEP 521/522 & Disinfection Upgrades	 Power Feed & Primary Switchgear Upgrades
 Headworks Facility	 Biosolids Digester Facilities Project (BDFP)

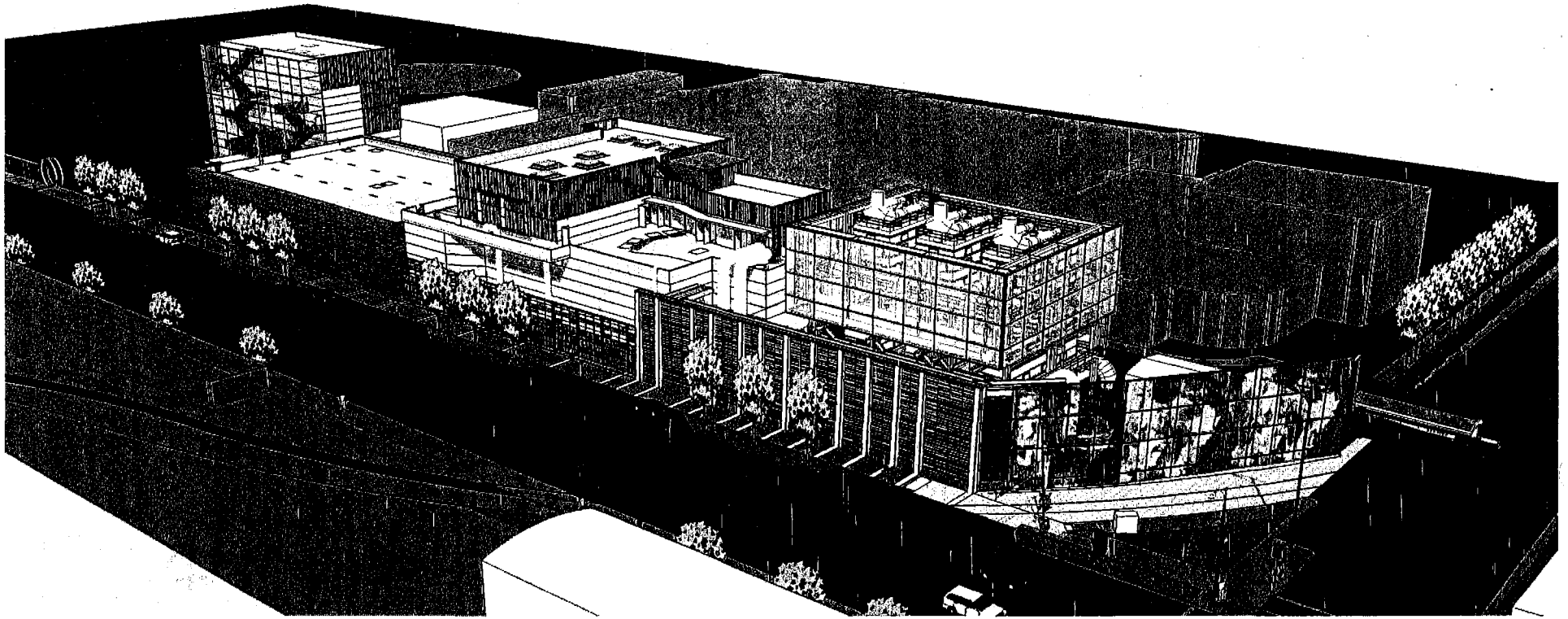
Headworks Facility Project Objectives

- Remove Grit to protect downstream processes
- Improve odor, noise, and visual quality
- Provide reliability and operational flexibility
- Improve seismic reliability
- Meet the permitted capacity of 250 million gallons per day (MGD)



Example Odor Control Structure

Headworks Facility Conceptual Rendering

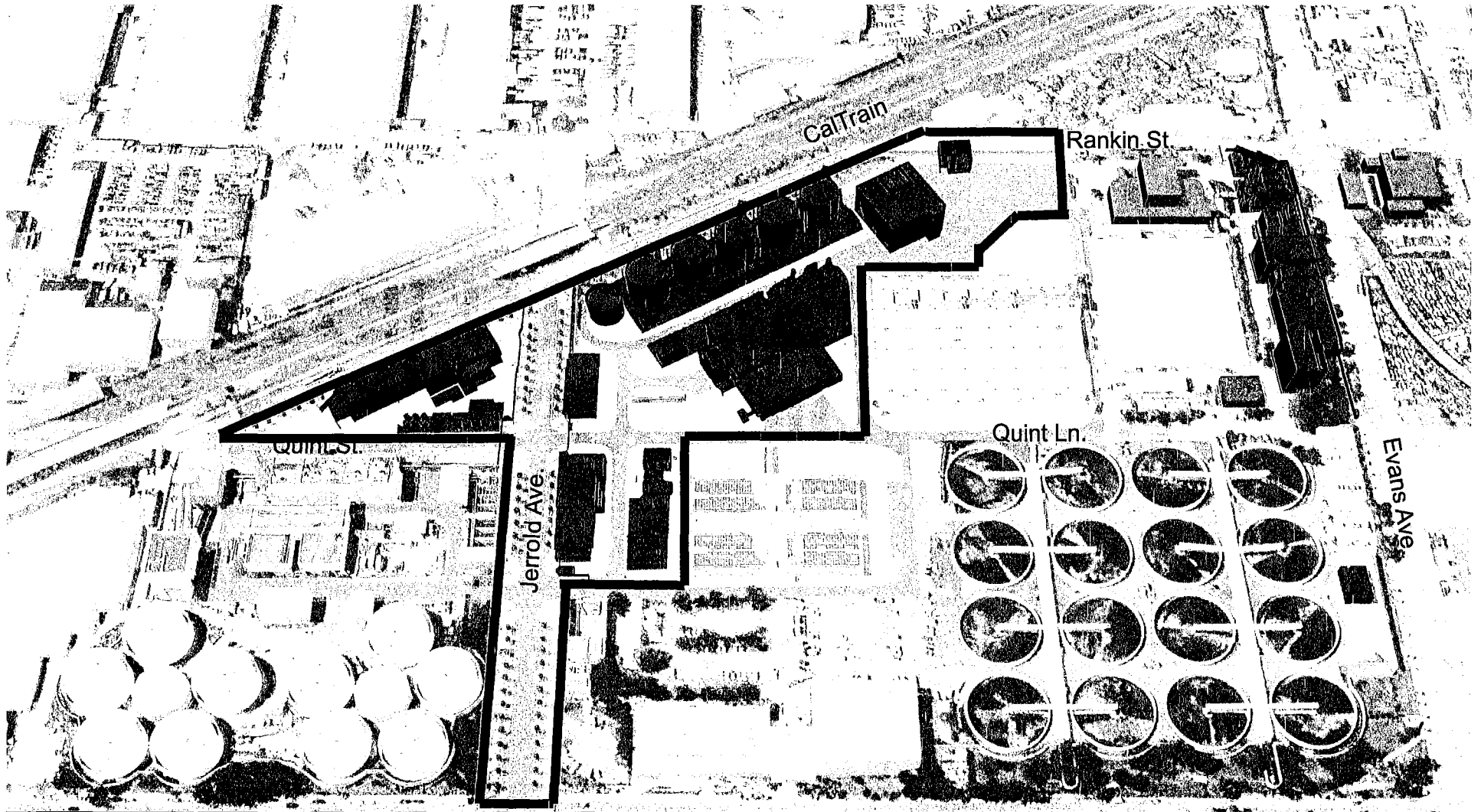




**SEWER
SYSTEM**
IMPROVEMENT PROGRAM
Grey. Green. Clean.

BIOSOLIDS DIGESTER FACILITIES PROJECT

Biosolids Project Location



LEGEND

SEP 521/522 & Disinfection Upgrades

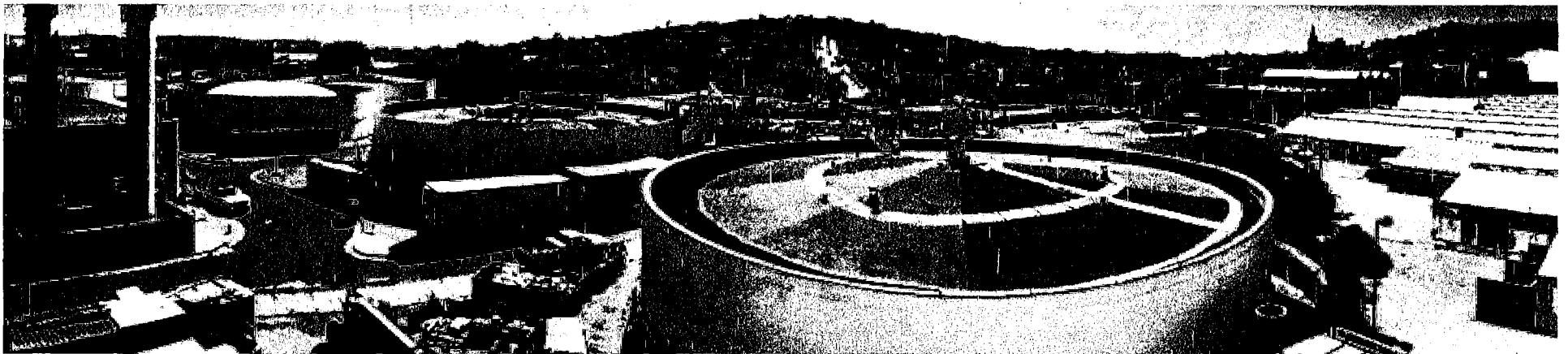
Power Feed & Primary Switchgear Upgrades

Headworks Facility

Biosolids Digester Facilities Project (BDFP)

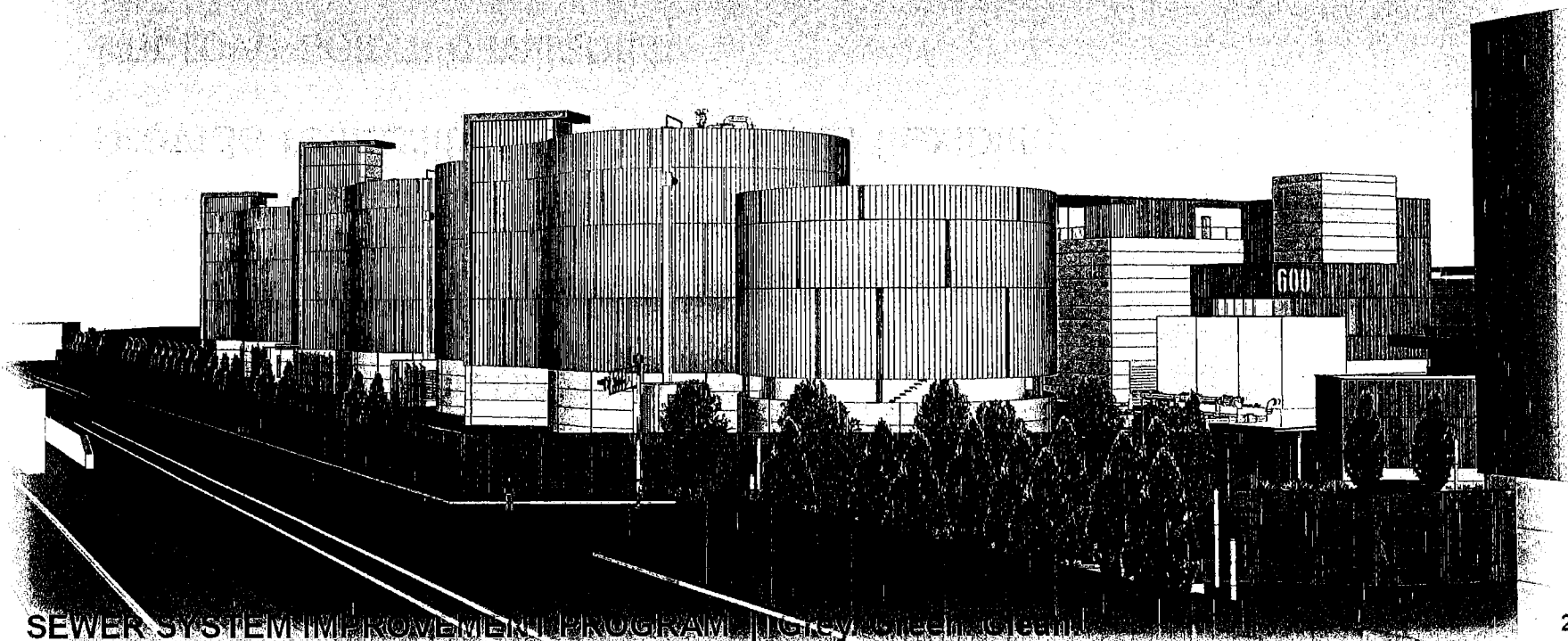
Biosolids Project Objective

- Address aging infrastructure – Construct new modern, proven, and efficient treatment technologies
- Maintain regulatory compliance
- Build critical processes with redundant infrastructure to provide reliability and operational flexibility
- Improve seismic reliability
- Beneficially use 100% of Biosolids and Biogas produced
- Improve odor, noise, and visual quality

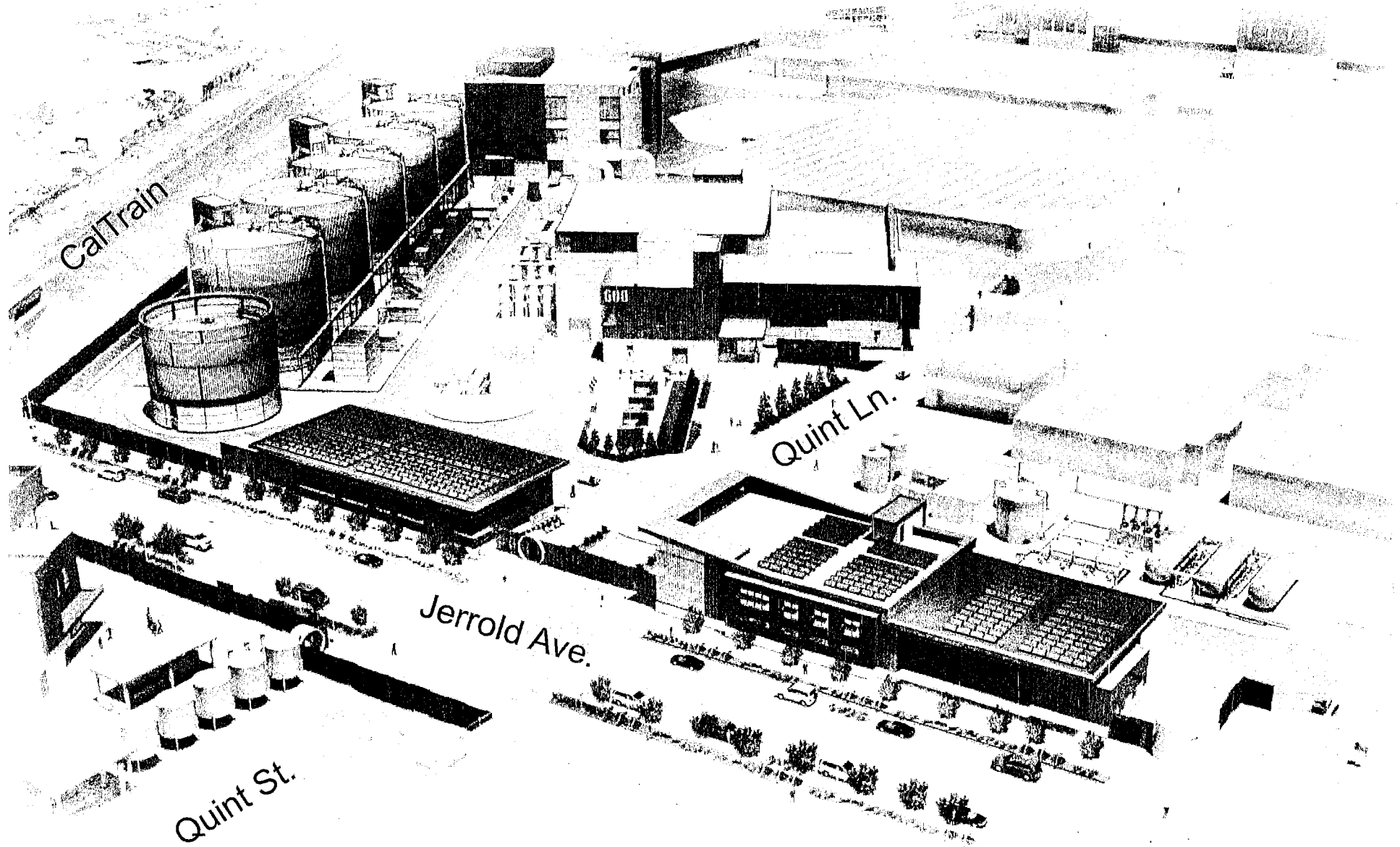


Biosolids Key Project Features

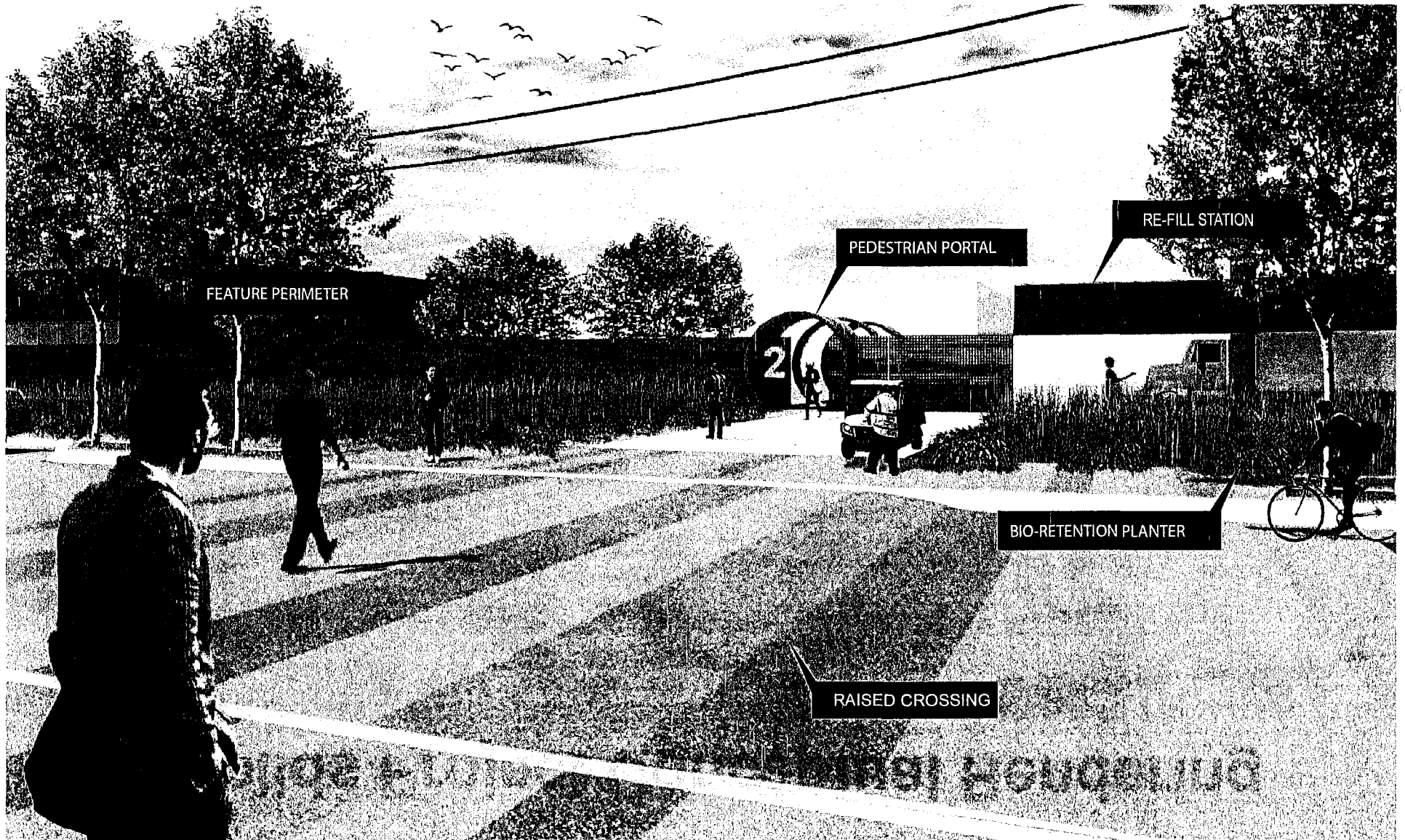
- Reducing Number of Digesters from 9 to 5
- Increasing Electricity Generation from 2 MW to 5 MW
- Improving Biosolids output quality from Class B to Class A
- Designing to limit odors within the SEP fence line



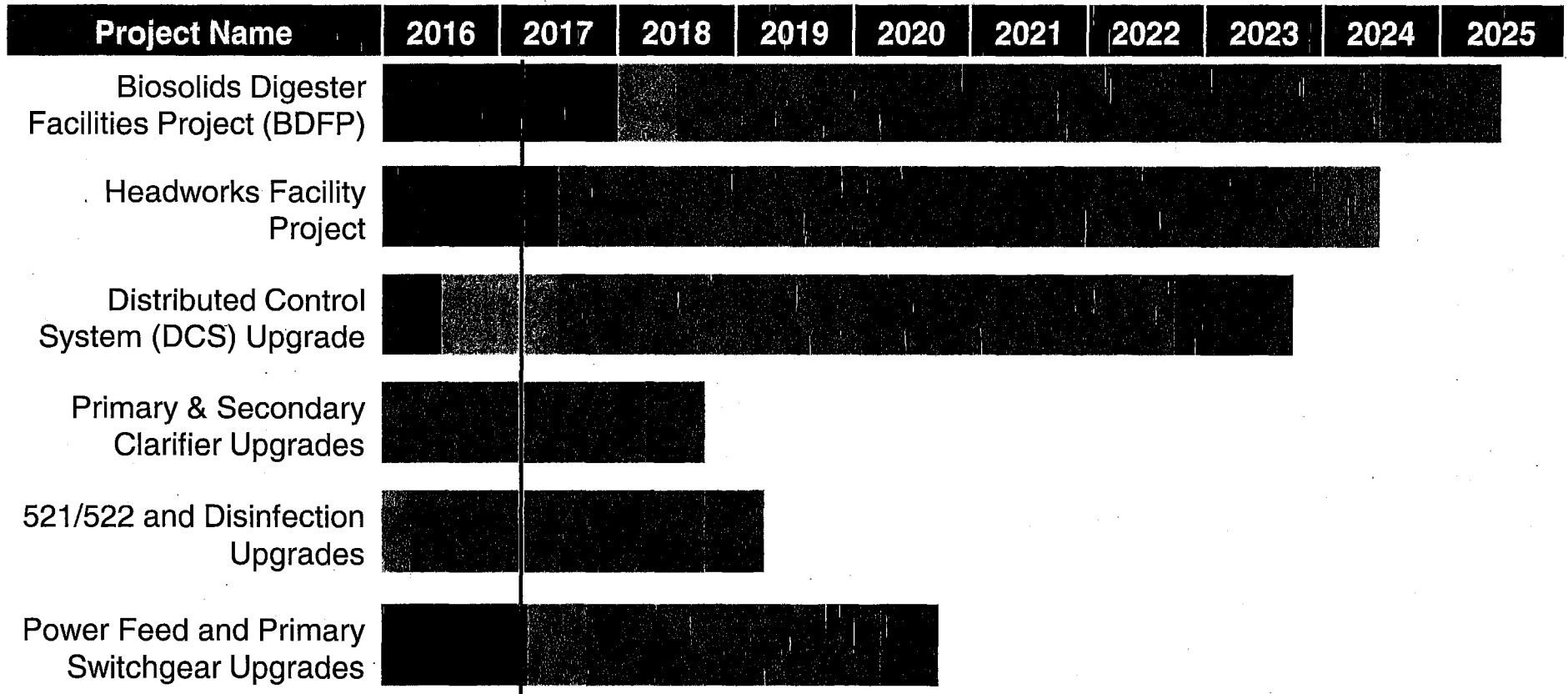
Biosolids Project Conceptual Rendering



Jerrold Ave Conceptual Rendering



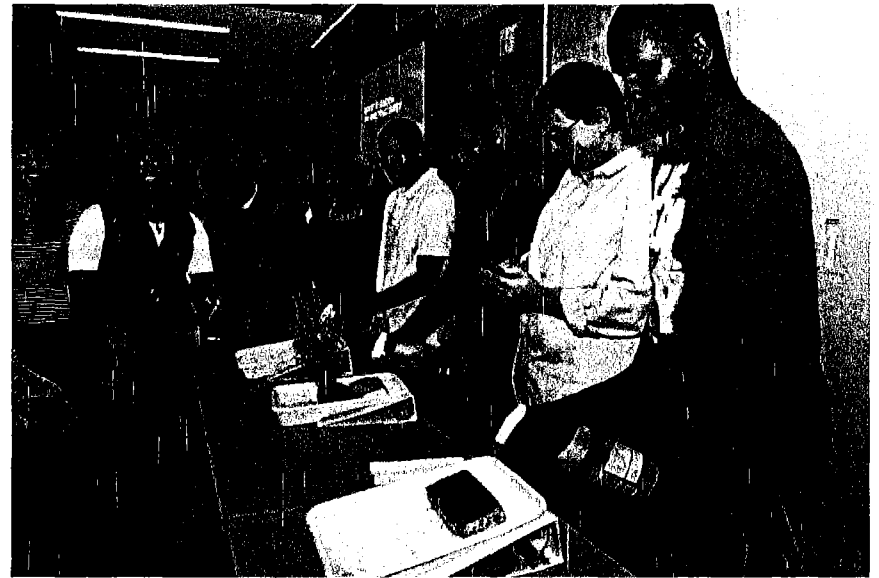
SEP Phase 1 Projects Schedule



Planning, Environmental, & Design
 Bid & Award
 Construction
 Close Out

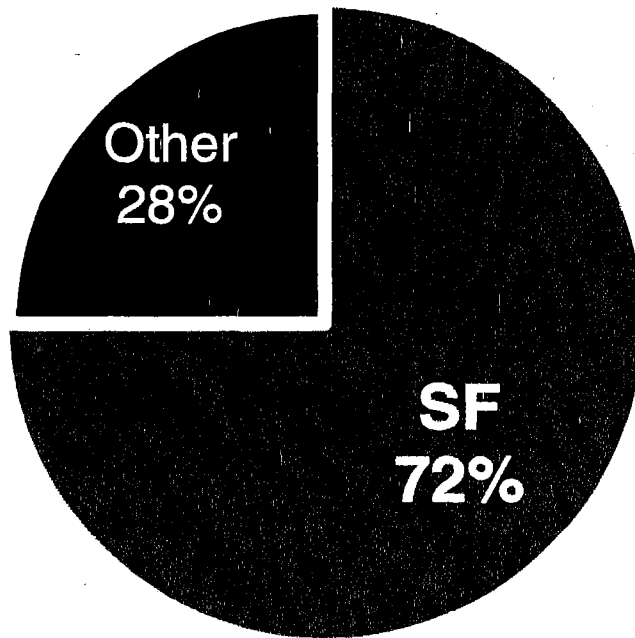
Community Benefits and Economic Inclusion

- Local Hire Requirement
- Community Benefits Requirements in Professional Service Contracts
- Contractors Assistance Center
- Youth and Adult Training Opportunities
- K-12 Education and Curriculum Development
- Workforce Development



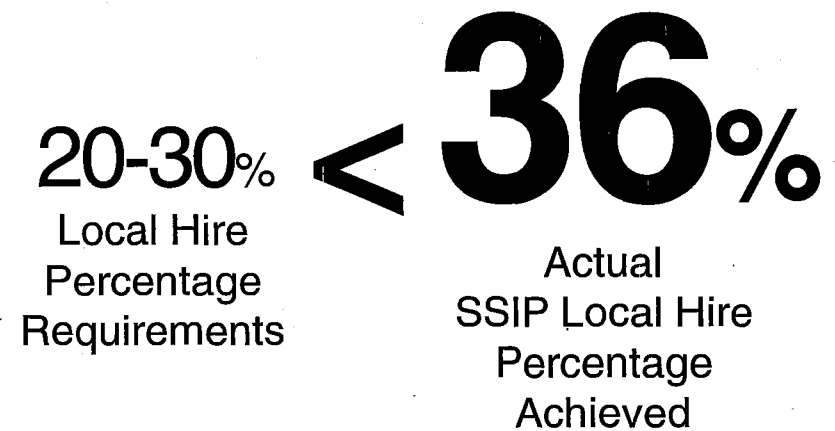
SSIP Phase 1: Jobs & Contracts

Apprenticeships (Entry-level) Provided by SSIP



SF residents have worked 72% of hours (as compared to 50% requirement) and earned a combined \$1.2M in wages & benefits

SSIP Local Hire Ordinance Achievement



San Francisco residents have earned a combined \$5.5M in wages & benefits on SSIP projects

Extensive Community Outreach

- Neighborhood Presentations
- Treatment & Facility Tours
- Online/Website
- Urban Watershed Game
- Open Houses & Workshops
- iPad Surveys
- Media & Social Media



Upcoming Board of Supervisors Items

PROJECT(S)	ITEM(S)	Introduction Date
Land Reuse - 1800 Jerrold (Central Shops relocation & construction)	<ul style="list-style-type: none"> • Approving amended MOU between SFPUC, RED, & GSA, and authorizing the beginning of the construction phase of new Central Shops • BlueLine Settlement for relocation out of Galvez Ave. • PG&E Easement (moving pole to public right of way) 	2/28/17 & 3/7/17
Headworks	Adopting CEQA findings, directing BOS to notify Controller of this action	3/14/17
Biosolids	Design Contract Modification	4/11/17
Headworks	Construction Management Services Contract	6/6/17
Multiple	Program Construction Management Services	7/25/17
Biosolids	Construction Management Services Contract	9/26/17



THANK YOU.



sfwater.org/ssip
ssip@sfwater.org
sfwater.org

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

MEMORANDUM

TO: Harlan Kelly, Jr., General Manager, Public Utilities Commission

FROM: Erica Major, Assistant Clerk, Government Audit and Oversight Committee,
Board of Supervisors

DATE: February 1, 2017

SUBJECT: HEARING MATTER INTRODUCED

The Board of Supervisors' Government Audit and Oversight Committee has received the following hearing matter, introduced by Supervisor Cohen on January 31, 2017:

File No. 170135

Hearing on the San Francisco Public Utilities Commission (SFPUC) Sewer System Improvement Program, including projects taking place at the Southeast Treatment Plant; and requesting the SFPUC to report.

If you have any comments or reports to be included with the file, please forward them to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102.

c: Juliet Ellis, Public Utilities Commission
Donna Hood, Public Utilities Commission
John Scarpulla, Public Utilities Commission

Print Form

RECEIVED
1/31/2017
5:33 pm
g
Time stamp
or meeting date

Introduction Form

By a Member of the Board of Supervisors or the Mayor

I hereby submit the following item for introduction (select only one):

- 1. For reference to Committee. (An Ordinance, Resolution, Motion, or Charter Amendment)
- 2. Request for next printed agenda Without Reference to Committee.
- 3. Request for hearing on a subject matter at Committee.
- 4. Request for letter beginning "Supervisor [] inquires"
- 5. City Attorney request.
- 6. Call File No. [] from Committee.
- 7. Budget Analyst request (attach written motion).
- 8. Substitute Legislation File No. []
- 9. Reactivate File No. []
- 10. Question(s) submitted for Mayoral Appearance before the BOS on []

Please check the appropriate boxes. The proposed legislation should be forwarded to the following:

- Small Business Commission Youth Commission Ethics Commission
- Planning Commission Building Inspection Commission

Note: For the Imperative Agenda (a resolution not on the printed agenda), use a Imperative Form.

Sponsor(s):

Cohen

Subject:

Hearing on the San Francisco Public Utilities Commission (SFPUC) Sewer System Improvement Program

The text is listed below or attached:

Hearing for overview and update on the SFPUC Sewer System Improvement Program (SSIP) including projects taking place at the Southeast Treatment Plant, requesting the SFPUC to report.

Signature of Sponsoring Supervisor: *Mark Cohen*

For Clerk's Use Only: