



SAN FRANCISCO PLANNING DEPARTMENT

PUBLIC NOTICE

Availability of Draft Environmental Impact Report for San Francisco Enterprise Zone Planning Department Case No. 2006.0954E State Clearinghouse No. 2006082139

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A Draft Environmental Impact Report (EIR) has been prepared by the San Francisco Planning Department in connection with this project. A copy of the report is available for public review and comment at the Planning Department offices at 1660 Mission Street, 1st Floor Planning Information Counter. Referenced materials are available for review by appointment at the Planning Department's office at 1650 Mission Street, 4th Floor. (Call 575-9024)

Project Description: The Enterprise Zone EZ is a long-term (15-year) partnership with local governments and private companies to generate new private sector investment and growth. The State provides performance based tax incentives to EZ businesses to revitalize chronically deteriorated areas; hire the most difficult-to-hire residents in private sector jobs; and retain, expand, and reward businesses that participate. The proposed project consists of renewing and reestablishing San Francisco's EZ and modifying the geographic boundaries of the previous EZ (established on May 28, 1992). The EZ previously consisted of approximately 4,902 acres and included most of the City's commercial- and industrial-designated areas. The new EZ would consist of approximately 5,815 acres, or approximately 913 acres more than the previous EZ.

A **public hearing** on this Draft EIR and other matters has been scheduled by the City Planning Commission for January 28, 2010, in Room 400, City Hall, 1 Dr. Carlton B. Goodlett Place, beginning at 1:30 p.m. or later. (Call 558-6422 the week of the hearing for a recorded message giving a more specific time.)

Public comments will be accepted from December 23, 2009 to 5:00 p.m. on February 8, 2010. Written comments should be addressed to Bill Wycko, Acting Environmental Review Officer, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103. Comments received at the public hearing and in writing will be responded to in a Summary of Comments and Responses document.

If you have any questions about the **environmental review** of the proposed project, please call Brett Bollinger at 415-575-9024.

www.sfplanning.org



DRAFT ENVIRONMENTAL IMPACT REPORT

San Francisco Enterprise Zone

PLANNING DEPARTMENT
CASE NO. **2006.0954E**

STATE CLEARINGHOUSE NO. 2006082139



**SAN FRANCISCO
PLANNING
DEPARTMENT**

Draft EIR Publication Date:	December 23, 2009
Draft EIR Public Hearing Date:	January 28, 2010
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Written comments should be sent to:
Environmental Review Officer | 1650 Mission Street, Suite 400 | San Francisco, CA 94103

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I. ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC Transit	Alameda-Contra Costa Transit District
ACE	U.S. Army Corps of Engineers
ACMs	Asbestos-Containing Materials
ADA	Americans with Disabilities Act
AST	Aboveground Storage Tank
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
Basin	San Francisco Bay Area Air Basin
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin
BMPs	Best Management Practices
C&R	Comments and Responses
CA DWR	California Department of Water Resources
CAA	Clean Air Act
Cal/EPA	California Environmental Protection Agency
Cal/OES	California Office of Emergency Services
Cal/OSHA	California Division of Occupational Safety and Health
CalARP	California Accidental Release Program
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAT	Climate Action Team

CBC	California Building Standards Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CDMG	California Division of Mines and Geology
CDT	California Department of Transportation
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	Methane
CHP	California Highway Patrol
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
COHb	Carboxyhemoglobin
Corps	United State Army Core of Engineers

CRHR	California Register of Historic Resources
CRWQCB	California Regional Water Quality Control Board
CSO	Combined Sewer Overflows
CWA	Clean Water Act
dB	Decibel
dBA	A-Weighted Sound Level
DBI	San Francisco Department of Building Inspection
DHS	Department of Health Services
DOC	California Department of Conservation
DPH	Department of Public Health
DPW	Department of Public Works
Draft EIR	Draft Environmental Impact Report
DTSC	Department of Toxic Substances Control
EE Application	Environmental Evaluation Application
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPA	U.S. Environmental Protection Agency
EZ	Enterprise Zone
FAR	Floor Area Ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Acts
FIRFA	Federal Insecticide, Fungicide, and Rodenticide Act

FIRMs	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
General Plan	San Francisco General Plan
GHGs	Green House Gases
HCD	Housing and Community Development
HFCs	Hydrofluorocarbons
HHWP	Hetch Hetchy Water and Power
HMUPA	Hazardous Material Unified Program Agency
HPSZ	Hunter's Point Shear Zone
I-280	Interstate 280
I-80	Interstate 80
IS	Initial Study
kV	Kilovolt
LBP	Lead-Based Paint
L _{dn}	Day/Night Noise Level
L _{eq}	Equivalent Noise level
LIM	Inventory and Monitoring
LOP	Local Oversight Program
LUFT	Leaking Underground Fuel Tank
MBTA	Federal Migratory Bird Treaty Act
MGD	Million Gallons per Day
MMRP	Mitigation Monitoring and Reporting Program

MOH	Mayor's Office of Housing
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
MRZ-4	Mineral Resource Zone 4
MSDS	Material Safety Data Sheets
MTC	Metropolitan Transportation Commission
Muni	San Francisco Municipal Railway
Mw	Moment Magnitude
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NO ₂	Nitrogen Dioxide
NOA	Naturally Occurring Asbestos
NOA	Notice of Availability
NOAA Fisheries	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOL	Net Operating Loss
NOP	Notice of Preparation

NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPRA	National Park and Recreation Association
NRCS	Natural Resources Conservation Service
O ₃	Ozone
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	Lead
PCBs	Polychlorinated Biphenyls
PFCs	Perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PMN	Premanufacture Notice
POUs	Publicly-Owned Utilities
Quad	Quadrangle
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Needs Allocation
ROGs	Reactive Organic Gases
Sam Trans	San Mateo County Transit
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SDWA	Safe Drinking Water Act

SF ₆	Sulfur Hexafluoride
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SFFD	San Francisco Fire Department
SFIA	San Francisco International Airport
SFMC	San Francisco Municipal Code
SFMTA	San Francisco Municipal Transportation Agency
SFO	San Francisco International Airport
SFPD	San Francisco Police Department
SFPUC	San Francisco Public Utilities Commission
SFRPD	San Francisco Recreation and Park Department
SFUSD	San Francisco Unified School District
SHBC	State Historical Building Code
SHPO	State Historic Preservation Office
SHSZ	Seismic Hazards Studies Zone
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigation, and Cleanup
SMARA	California Surface Mining and Reclamation Act
SO ₂	Sulfur Dioxide
SO ₄	Hydrogen Sulfide
Southeast Plant	Southeast Water Pollution Control Plant
SPCC	Spill Prevention Control and Countermeasures
SR	State Route
SRA	State Responsibility Area

SWPPP	Storm Water Pollution Protection Plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
The City	The City of San Francisco
TMDLs	Total Maximum Daily Loads
TSCA	Toxic Substances Control Act
UBC	Uniform Building Code
USFWS	United State Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
VdB	Vibration Decibels
VOC	Volatile Organic Compound
Williamson Act	California Land Conservation Act of 1965
WPD	Water Permits Division

II. SUMMARY

A. PROJECT SYNOPSIS

The City and County of San Francisco is requesting the establishment of a California Enterprise Zone (EZ). The State of California approved the Enterprise Zone Act, establishing a mechanism to stimulate employment generation and business growth in economically distressed areas throughout the State.

The EZ is a long-term (15-year) partnership with local governments and private companies to generate new private sector investment and growth. The State provides performance based tax incentives to EZ businesses to retain, expand, and reward businesses that participate in the following State objectives: revitalize chronically deteriorated areas and hire the most difficult-to-hire residents in private sector jobs.

An EZ is an area in which companies are eligible for State incentives and programs not available to businesses located outside of the EZ. State incentives available to companies include:

- tax credits for sales and use tax paid on machinery purchases;
- tax credits for hiring qualified employees;
- interest deductions for lenders on loans to firms within an EZ;
- fifteen year net operating loss carry-forward;
- accelerated expensing deduction; and
- priority for various State programs, such as State contracts.

EZs must be located in areas that are considered economically depressed with higher than average unemployment rates. By offering incentives and programs only available in EZs, these areas can attract and retain companies that would not otherwise locate, stay, or expand there. Both existing companies and new companies can take advantage of the incentives.

The EZ designation does not authorize any new development that conflicts with existing land use plans, codes, and ordinances of the participating jurisdictions. The EZ designation merely seeks to foster more investment in areas already set aside for development; specifically those areas zoned for commercial and industrial use.

The area proposed for the San Francisco Enterprise Zone (EZ), also referred to as the “project area” throughout this Draft EIR, is located within the City. The EZ previously consisted of approximately 4,902 acres and included most of the City’s commercial- and industrial-designated areas. The new EZ would consist of approximately 5,815 acres, or approximately 913 acres more than the previous EZ.

B. SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table II-1 summarizes the environmental impacts associated with the project. Complete discussions of environmental impacts can be found in Section V (Environmental Setting and Impacts).

Table II-1
Summary of Impacts and Mitigation Measures

Topic	Significance	Mitigation
Land Use	Less than Significant	None
Aesthetics	Less than Significant	None
Population and Housing	Less than Significant	None
Cultural Resources	Less than Significant	None
Transportation and Circulation	Less than Significant	None
Noise	Less than Significant	None
Air Quality	Less than Significant	None
Wind and Shadow	Less than Significant	None
Recreation	Less than Significant	None
Utilities and Service Systems	Less than Significant	None
Public Services	Less than Significant	None
Biological Resources	Less than Significant	None
Geology and Soils	Less than Significant	None
Hydrology and Water Quality	Less than Significant	None
Hazards/Hazardous Materials	Less than Significant	None
Mineral/Energy Resources	Less than Significant	None
Agricultural Resources	Less than Significant	None

C. SUMMARY OF PROJECT ALTERNATIVES

This Draft EIR considers a range of alternatives to the proposed project to provide informed decision-making in accordance with Section 15126.6 of the CEQA Guidelines. The alternatives analyzed in this Draft EIR include:

Alternative A: No Project Alternative

Under the “No Project” alternative, the EZ designation would not occur. This alternative assumes that the affected businesses would not receive any tax incentives. This alternative assumes that there would not be any other economic development stimulants associated with the EZ that could accelerate development. Under the “No Project” alternative, the EZ area would be developed as land uses consistent with the San Francisco General Plan, although the rate of development would not potentially be accelerated through incentives such as tax incentives.

Alternative B: Reduced Size Alternative

Under the “Reduced Size” alternative, the EZ would be reduced to areas where the existing infrastructure and public services could be most easily increased or expanded to accommodate new growth within the foreseeable future. This alternative assumes that the land excluded would not receive any tax incentives, but would still be developed consistent with the San Francisco General Plan, although the potential to accelerate development from the EZ tax incentive would be reduced. This alternative assumes that there would not be any other economic development stimulants that could accelerate development in these areas.

Environmentally Superior Alternative

CEQA requires that an EIR alternatives analysis include designation of an “environmentally superior” alternative. As no potentially significant impacts were identified with the project as proposed, there is no “environmentally superior” alternative because there are no significant impacts to mitigate by proposing an alternative. Table II-2 summarizes the environmental impacts associated with the project and the alternatives.

**Table II-2
Comparison of Impacts of Alternatives to Impacts of Proposed Project**

	Proposed Project	A: No Project Alternative	B: Reduced Size Alternative
Description	EZ designation	No EZ designation	EZ would be reduced to areas where the existing infrastructure and public services provide could be most easily increased or expanded to accommodate new growth within the foreseeable future
Impact			
Land Use	No significant impacts.	No significant impacts.	No significant impacts.
Aesthetics	No significant impacts.	No significant impacts.	No significant impacts.
Population and Housing	No significant impacts.	No significant impacts.	No significant impacts.
Cultural Resources	No significant impacts.	No significant impacts.	No significant impacts.
Transportation and Planning	No significant impacts.	No significant impacts.	No significant impacts.
Noise	No significant impacts.	No significant impacts.	No significant impacts.
Air Quality	No significant impacts.	No significant impacts.	No significant impacts.
Wind and Shadow	No significant impacts.	No significant impacts.	No significant impacts.
Recreation	No significant impacts.	No significant impacts.	No significant impacts.
Utilities and Service Systems	No significant impacts.	No significant impacts.	No significant impacts.
Public Services	No significant impacts.	No significant impacts.	No significant impacts.
Biological Resources	No significant impacts.	No significant impacts.	No significant impacts.
Geology and Soils	No significant impacts.	No significant impacts.	No significant impacts.
Hydrology and Water	No significant impacts.	No significant impacts.	No significant impacts.

**Table II-2
Comparison of Impacts of Alternatives to Impacts of Proposed Project**

	Proposed Project	A: No Project Alternative	B: Reduced Size Alternative
Quality			
Hazards/Hazardous Materials	No significant impacts.	No significant impacts.	No significant impacts.
Miner/Energy Resources	No significant impacts.	No significant impacts.	No significant impacts.
Agricultural Resources	No significant impacts.	No significant impacts.	No significant impacts.

D. AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

The NOP was published on August 25, 2006. Five responses to the NOP were received. Known areas of controversy associated with the proposed project include traffic, utilities, geology/soils, and aesthetics. Comments submitted during the scoping process addressed a variety of topics. Commenters requested that the EIR analyze the following:

- Traffic impacts (see Section V.F [Transportation and Circulation]);
- Land use conflicts with residential uses (see Section V.B [Land Use]);
- Displacement of residents (see Section V.D [Population and Housing]);
- Loss of off-street parking (see Section V.F [Transportation and Circulation]);
- Lack of playgrounds (see Section V.J [Recreation] and V.L [Public Services]);
- Utilities distribution infrastructure (see V.K [Utilities and Service Systems]);
- Biological resources (see Section V.M [Biological Resources]);
- Impacts related to earthquake faults, seismic activity, liquefaction, sink holes, and rupture of underground storage facilities (see Section V.N [Geology and Soils]);
- Financial contribution to improvements of underground water delivery system (see Section V.K [Utilities and Service Systems]); and
- Unknown hazardous materials (see Section V.P [Hazards/Hazardous Materials]).

III. INTRODUCTION

A. TYPE, PURPOSE AND FUNCTION

According to Senate Bill No. 341, which amended Section 7075 of the Government Code, an Environmental Impact Report (EIR) is no longer required to designate a specified area as an Enterprise Zone (EZ) if, (1) the application was filed on or after October 1, 2007, and if (2) a Negative Declaration (ND) or Mitigated Negative Declaration (MND) is deemed sufficient. Since the application for this proposed EZ was filed before October 1, 2007, this EIR has been prepared to analyze the potential environmental impacts of the EZ. This Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines to satisfy this requirement. The City and County of San Francisco Planning Department is identified as the Lead Agency for the project with approval authority over the project.

The purpose of this Draft Environmental Impact Report (Draft EIR) is to inform decision-makers and the general public of the potential environmental impacts resulting from the adoption and implementation of the proposed San Francisco Enterprise Zone (proposed project). A detailed description of the project is contained in Section IV (Project Description) of this Draft EIR. The project applicant is the City and County of San Francisco Mayor's Office of Economic and Workforce Development, City Hall, Room 448, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102. The Lead Agency for the project is the City and County of San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

The California Enterprise Zone (EZ) program is administered by the California Department of Housing and Community Development. The purpose of the California State Enterprise Zone Program is to: stimulate business and industrial growth in depressed areas of the State; help attract business into the State; help retain and expand business and industry; and, create increased job opportunities for all Californians. EZs are established to stimulate business and industrial growth by reducing tax burdens that impede private investment and provide certain tax credits including credit for hiring qualified employees. The benefits of the EZ include: State tax credits for hiring qualified employees, State tax credits for sales or use taxes paid for certain property, 15-year net operating loss (NOL) carryover, and accelerated expense deductions. Businesses that qualify for tax credits can claim them for five years, regardless of whether or not there are five years left in the designation.

The establishment of an EZ does not change any land use designations, and does not propose any specific development; rather, it is an overlay designation and is separate from any land use regulations. Future projects within the EZ must be consistent with the General Plan and zoning classifications and may be subject to approval and environmental review from the local agency with jurisdiction. The proposed project consists of renewing and reestablishing the San Francisco EZ (established in 1992) as well as increasing the area within the previous EZ boundary.

As described in Sections 15121(a) and 15362 of the Guidelines for California Environmental Quality Act (CEQA Guidelines),¹ an EIR is an informational document which will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to mitigate any significant environmental effects, and identify and evaluate a reasonable range of alternatives to the project that have the potential to mitigate or avoid the project's potential significant environmental effects while feasibly accomplishing most of the project's basic purposes. Therefore, the purpose of this Draft EIR is to focus the discussion on the proposed EZ's potential effects on the environment that the Lead Agency has determined are or may be significant. In addition, when applicable, the Draft EIR recommends feasible mitigation measures that can reduce or avoid significant environmental impacts.

This Draft EIR was prepared in accordance with Section 15151 of the CEQA Guidelines, which defines the standards for EIR adequacy:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a Project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

Scope of the Environmental Analysis

Studies^{2,3} have attempted to assess the fiscal effectiveness of EZs. Some studies have shown employment in EZs to grow twice as fast as in areas without the EZ designation while other studies have shown that the EZ benefits in most areas are too small to have a significant effect on employment or business growth. The most conservative models conclude that only 10 percent of job growth is due to programs implemented through the EZ.⁴ Overall, it is difficult to attribute a specific rate of development to implementation of an EZ. Despite disagreement as to the economic benefits associated with an EZ, affected local communities typically benefit from increased in-fill development and reduced blight.

The purpose of the analyses contained in this Draft EIR is not to assess the success of the EZ program, but rather to measure potential environmental impacts that would result from implementation of the EZ. The least conservative analysis of the EZ program states that approximately one third of growth in an EZ

¹ California Code of Regulations Title 14, Chapter 3, Sections 15000-15387.

² Applied Development Economics, Cost Benefit Analysis of California's Enterprise Zone Program, June 5, 2003.

³ Non-Profit Management Solutions and Tax Technology Research LLC, Report to the California Department of Housing and Community Development of Enterprise Zones, August 18, 2006.

⁴ Applied Development Economics, Cost Benefit Analysis of California's Enterprise Zone Program, June 5, 2003.

area is attributable to the program. This scenario presents a worst-case basis for evaluating environmental impacts because it assumes a high estimate of development and growth that would result from the EZ.

For the purposes of this Draft EIR, the most feasible way to present growth under the EZ is to disclose the possible areas and means by which development could take place. It is assumed that future projects resulting from implementation of the EZ would be required to adhere to the applicable regulations and undergo the appropriate environmental review pursuant to CEQA.

B. PROPOSED PROJECT

The EZ is a long-term (15-year) partnership with local governments and private companies to generate new private sector investment and growth. The proposed project consists of renewing and reestablishing San Francisco's EZ and modifying the geographic boundaries of the previous EZ (established on May 28, 1992).

C. ENVIRONMENTAL REVIEW PROCESS

The project sponsor submitted an Environmental Evaluation Application (EE application) for the proposed EZ on August 15, 2006.

The Planning Department printed and circulated a Notice of Preparation (NOP) on August 25, 2006 that solicited comments regarding the content of the proposed EIR for the proposed project. The NOP for the Draft EIR was circulated for 30 days in accordance with CEQA Guidelines Section 15082(b).

In conjunction with the Notice of Preparation (NOP), an Initial Study was prepared for the project and is included in Appendix A to this Draft EIR. The purposes of the Initial Study, as set forth in Section 15063(c)(3) of the CEQA Guidelines, are to assist the preparation of the EIR by: (A) focusing the EIR on the effects determined to be significant; (B) identifying the effects determined not to be significant; (C) explaining the reasons for determining that potentially significant effects would not be significant; and (D) identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.⁵

This Draft EIR for the proposed EZ project has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, as amended, the CEQA Guidelines, and Chapter 31 of the San Francisco Administration Code.

⁵ *In the case of the project, the appropriate process for analyzing the project's environmental effects is the preparation of a "Proposed Program EIR," the type of EIR prepared for programs composed of a series of actions related to either: (1) Geographically, (2) As logical parts in the chain of contemplated actions, (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways. This Draft EIR constitutes a "Program EIR" under Section 15168 of the CEQA Guidelines.*

The EZ project Draft Environmental Impact Report includes the following:

- Summary of the proposed project and its potential environmental effects
- Description of the proposed project and alternatives considered
- Description of the existing environmental setting and potential significant environmental impacts
- Mitigation and improvements measures
- Alternatives to the proposed project
- Environmental consequences of the project, including any significant effects which cannot be avoided if the project is implemented

To solicit public comment on the adequacy and accuracy of the information presented in this Draft EIR following its publication, there will be a public hearing before the Planning Commission during a 45-day public review and comment period. In addition, readers are invited to submit written comments on the adequacy of the document, that is, whether this Draft EIR identifies and analyzes the possible environmental impacts and identifies appropriate mitigation measures. The documents referenced in the DEIR can be obtained at the San Francisco Planning Department. CEQA Guidelines Section 15096(d) calls for responsible agencies to provide comments on those project activities within those agencies' area of expertise and to support those comments with either oral or written documentation.

Following the close of the public review and comment period, the City will prepare written responses that address all substantive written and oral comments on the Draft EIR. The City will revise the DEIR as appropriate and present it to the Planning Commission and then to the Board of Supervisors for certification as to its accuracy, objectiveness, and completeness. The Final EIR will consist of the Draft EIR, the comments received during the public review period, responses to the comments, and any revisions to the Draft EIR that result from public agency and public comments.

The City will use the certified EIR, along with other information and the public process, to determine whether to approve, modify, or disapprove the proposed project, and to specify any applicable environmental conditions as part of project approvals.

If the City decides to approve the proposed project with significant effects that are identified in the Final EIR but which are not avoided or substantially reduced, the City must indicate that any such unavoidable significant effects are acceptable due to overriding considerations as described in CEQA Guidelines Section 15093. This is known as a Statement of Overriding Considerations. In preparing this Statement, the City must balance the prescribed types of benefits of the proposed project against its unavoidable environmental risks. If the benefits of a project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable (CEQA Guidelines Section 15093). If an agency makes a Statement of Overriding Considerations, the statement must be included in the record of project approval.

Public Comments on EIR Scope

As discussed above, the City distributed a Notice of Preparation (NOP) on August 25, 2006, announcing its intent to prepare and distribute an EIR. In response to the NOP, the City received written comments from the following agencies and organizations (all responses to the NOP are included in Appendix B to this Draft EIR):

- State of California Department of Parks and Recreation
- State of California Department of Transportation
- Department of California Highway Patrol
- North Beach Chamber of Commerce

In addition, the City received a written comment from the following person:

- Marcus Phillips

Comments submitted during the scoping process addressed a variety of topics. Commenters requested that the EIR analyze the following:

- Traffic impacts (see Section V.F [Transportation and Circulation]);
- Land use conflicts with residential uses (see Section V.B [Land Use]);
- Displacement of residents (see Section V.D [Population and Housing]);
- Loss of off-street parking (see Section V.F [Transportation and Circulation]);
- Lack of playgrounds (see Section V.J [Recreation] and V.L [Public Services]);
- Utilities distribution infrastructure (see V.K [Utilities and Service Systems]);
- Biological resources (see Section V.M [Biological Resources]);
- Impacts related to earthquake faults, seismic activity, liquefaction, sink holes, and rupture of underground storage facilities (see Section V.N [Geology and Soils]);
- Financial contribution to improvements of underground water delivery system (see Section V.K [Utilities and Service Systems]); and
- Unknown hazardous materials (see Section V.P [Hazards/Hazardous Materials]).

The City has considered the public comments made by the public in preparing the Draft EIR for the proposed project. The Notice of Preparation (NOP) is included in Appendix A to this Draft EIR.

How to Comment on the Draft EIR

Copies of the Draft EIR are available at the zoning information counter at 1660 Mission Street, San Francisco. The background reports and data prepared for the EIR are available for review at the San Francisco Planning Department, 1650 Mission Street, fourth floor, by appointment.

Written comments on the Draft EIR may be addressed to:

Bill Wycko, Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103

A Planning Commission Draft EIR public hearing will be held during the review period. Notice of the time and location will be published prior to the public hearing date.

A Final EIR request postcard is included in Appendix C to this Draft EIR. The Final EIR will include the Draft EIR and the Comments and Responses Document.

IV. PROJECT DESCRIPTION

A. PROJECT OBJECTIVES

The project sponsor is the City and County of San Francisco Mayor's Office of Economic and Workforce Development, City Hall, Room 448, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102. The Lead Agency is the City and County of San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103.

The project sponsor's objectives in implementing the project are to:

- Create meaningful job opportunities for individuals with multiple barriers to employment;
- Create new jobs through the expansion of existing businesses;
- Create new jobs through business formation; and
- Create new jobs through the attraction of firms in the targeted industry sectors.

B. PROJECT LOCATION

Regional Setting

San Francisco is a consolidated city and county. As illustrated in Figure IV-1, the City and County of San Francisco (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 occupies an area of approximately 47 square miles with elevations ranging from 0 to 925 feet. Historically, diverse economic activities have shaped the City, including the California Gold Rush, port activity, technology, entrepreneurship, banking, and tourism. Table IV-1 depicts the land use categories within the City. As shown in Table IV-1, the single largest land use category in the City is residential.

**Table IV-1
Summary of Existing Use Districts in San Francisco**

Use District	Square Miles
Public Use	11.60
Residential	16.84
Neighborhood Commercial	1.53
Mixed Use	1.73
Commercial	0.99
Industrial	2.91
Total	35.60
<i>Source: City and County of San Francisco Planning Department, October 2008.</i>	

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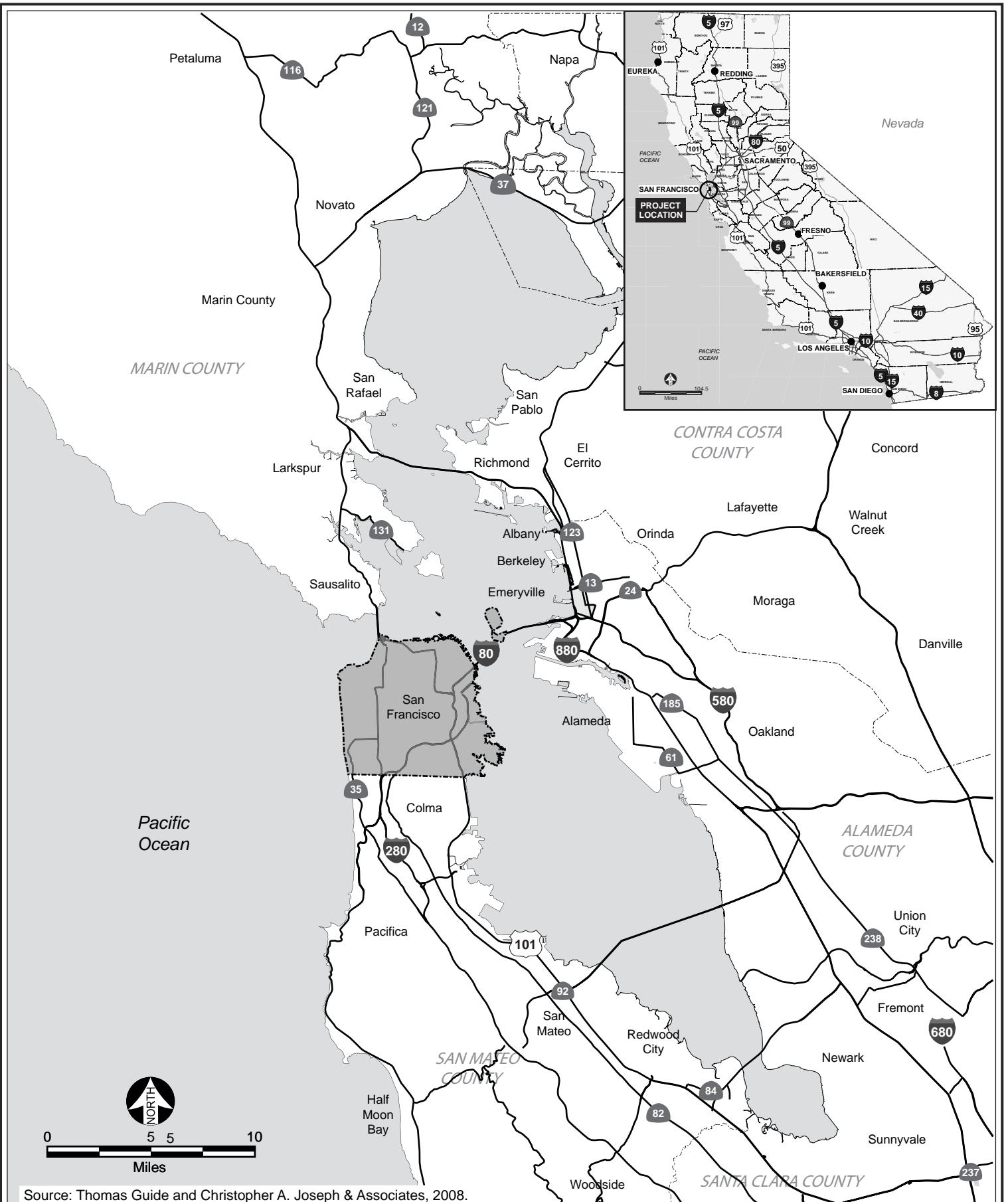


Figure IV-1
City and County of San Francisco
Regional Map

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Local Setting

The area proposed for the San Francisco Enterprise Zone (EZ), (herein after referred to as the “project area”) extends through many areas of the City, primarily Fisherman’s Wharf, North Beach, Chinatown, Downtown/Civic Center, Financial District, Western Addition, Haight, South of Market, South Beach, Mission Bay, Portrero, Mission District, Central Waterfront, Bayview Hunters Point, and Visitacion Valley neighborhoods. The project area includes major transportation nodes, including Market Street and the Transbay Terminal.

The previous EZ consisted of approximately 4,902 acres and included most of the City’s commercial- and industrial-designated areas. The new EZ would consist of approximately 5,815 acres, or approximately 913 acres more than the previous EZ. The proposed boundary of the EZ vicinity is shown in Figure IV-2 and a legal boundary description is provided in Table IV-2.

**Table IV-2
Legal Boundary Description of the EZ**

Starting At	Direction	Boundary	Ending At	Includes (street side)
Valencia St.	North	Cesar Chavez	Market	
Market	Northeast	Valencia	Van Ness	
Van Ness	North	Market	Oak	
Oak	West	Van Ness	Steiner	
Steiner	North	Oak	Geary	
Geary	East	Steiner	Gough	
Gough	South	Geary	McAllister	
McAllister	East	Gough	Van Ness	
Van Ness	North	McAllister	Bush	
Bush	East	Van Ness	Stockton	
Stockton	North	Bush	California	
California	West	Stockton	Powell	
Powell	North	California	Washington	
Washington	West	Powell	Mason	
Mason	North	Washington	Columbus	
Columbus	Southeast	Mason	Pacific	
Pacific	East	Columbus	Sansome	
Sansome	North	Pacific	Greenwich	
Greenwich	West	Sansome	Montgomery	
Montgomery	North	Greenwich	Chestnut	
Chestnut	West	Montgomery	Columbus	
Columbus	Northwest	Chestnut	Leavenworth	
Leavenworth	North	Columbus	Jefferson	
Jefferson	East	Leavenworth	Embarcadero	
Embarcadero	East/ Southeast	Jefferson	Willie Mays Plaza	
Willie Mays Plaza	Southwest	Embarcadero	Third	

Table IV-2 (Continued)
Legal Boundary Description of the EZ

Starting At	Direction	Boundary	Ending At	Includes (street side)
Third	Southeast	Willie Mays Plaza	Terry A Francois	
Terry A Francois	South	Third	Illinois	
Illinois	South	Terry A Francois	24 th Street	
24 th Street	East	Illinois	Michigan	
Michigan	South	24 th Street	25 th Street	
25 th Street	West	Michigan	3 rd Street	
3 rd Street	South	25 th Street	Cesar Chavez	
Cesar Chavez	East	3 rd Street	Michigan Street	
Michigan Street	South	Cesar Chavez	Marin	
Marin	West	Michigan	3 rd Street	
3 rd Street	South	Marin	Cargo Way	
Cargo Way	Southeast	3 rd Street	Jennings	
Jennings	Southwest	Cargo Way	Evans	
Evans	Southeast	Jennings	Hunters Point Blvd	
Hunters Point	Southeast	Evans	Innes	
Innes	Southeast	Hunters Point	Donahue	
Donahue	Northeast	Innes	Lockwood	
Lockwood	Southeast	Donahue	Fisher	
Fisher	Southwest	Lockwood	Robinson	
Robinson	Southeast	Fisher	Lockwood	
Lockwood	Southeast	Robinson	Nimitz	
Nimitz	Southwest	Lockwood	Spear	
Spear	Southwest	Nimitz	Morrell	
Morrell	Southeast	Spear	Manseau	
Manseau	Southwest	Morrell	Hussey	
Hussey	Southeast	Manseau	Mahan	
Mahan	Southwest	Hussey	J Street	
J Street	Northwest	Mahan	Spear	
Spear	Northeast	J Street	Crisp	
Crisp	West	Spear	Griffith	
Griffith	Southwest	Crisp	Thomas	
Thomas	Northwest	Griffith	Hawes	
Hawes	Southwest	Thomas	Underwood	
Underwood	Northwest	Hawes	Ingalls	
Ingalls	Southwest	Underwood	Carroll	
Carroll	Southeast	Ingalls	Arelious Walker	
Arelious Walker	Southwest	Carroll	Gilman	
Gilman	Southeast	Arelious Walker	Hunters Point Expressway	
Hunters Point Expressway	South	Gilman	Jamestown	
Jamestown	West	Hunters Point Expressway	Harney Way	
Harney Way	West	Jamestown	Alanna	
Alanna	West	Harney Way	Executive Park Blvd	
Executive Park Blvd	Northwest	Alanna	Blanken	
Blanken	West	Executive Park Blvd	Gillette	
Gillette	South	Blanken	Lathrop	

Table IV-2 (Continued)
Legal Boundary Description of the EZ

Starting At	Direction	Boundary	Ending At	Includes (street side)
Lathrop	West	Gillette	Tunnel	
Tunnel	North	Lathrop	Blanken	
Blanken	West	Tunnel	Bayshore	
Bayshore	Southwest	Blanken	San Bruno	
San Bruno	North	Bayshore	Somerset	
Somerset	North	San Bruno	Campbell	
Campbell	West	Somerset	Rutland	
Rutland	South	Campbell	Visitacion	
Visitacion	West	Rutland	Schwerin	
Schwerin	South	Visitacion	Sunnydale	
Sunnydale	West	Schwerin	Hahn	
Hahn	South	Sunnydale	Velasco	Sunrise
Velasco	West	Castillo	Santos	
Santos	South	Velasco	Geneva	
Geneva	Northwest	Santos	Brookdale	
Brookdale	Northeast	Geneva	Santos	
Santos	North	Brookdale	Sunnydale	Sunnydale
Sunnydale	East	Santos	Hahn	
Hahn	North	Sunnydale	Leland	
Leland	East	Hahn	Sawyer	
Sawyer	North	Leland	Raymond	Raymond
Raymond	East	Sawyer	Elliott	
Elliott	North	Raymond	Campbell	
Campbell	East	Elliott	Delta	
Delta	North	Campbell	Ankeny	
Ankeny	East	Delta	Ward	
Ward	East	Ankeny	San Bruno	
San Bruno	South	Ward	Bayshore	
Bayshore	North	San Bruno	Cesar Chavez	
Cesar Chavez	East	Bayshore	Vermont	
Vermont	North	Cesar Chavez	26 th Street	
26 th Street	East	Vermont	Kansas	
Kansas	North	26 th Street	22 nd Street	
22 nd Street	East	Kansas	Arkansas	
Arkansas	North	22 nd	20 th	
20 th	East	Arkansas	Indiana	
Indiana	North	20 th	Mariposa	
Mariposa	West	Indiana	Pennsylvania	
Pennsylvania	North	Mariposa	17 th Street	
17 th Street	West	Pennsylvania	Hampshire	
Hampshire	South	17 th Street	23 rd Street	
23 rd Street	West	Hampshire	South Van Ness	
South Van Ness	South	23 rd Street	Cesar Chavez	
Cesar Chavez	West	South Van Ness	Valencia	

Source: San Francisco Enterprise Zone Application, 2006.

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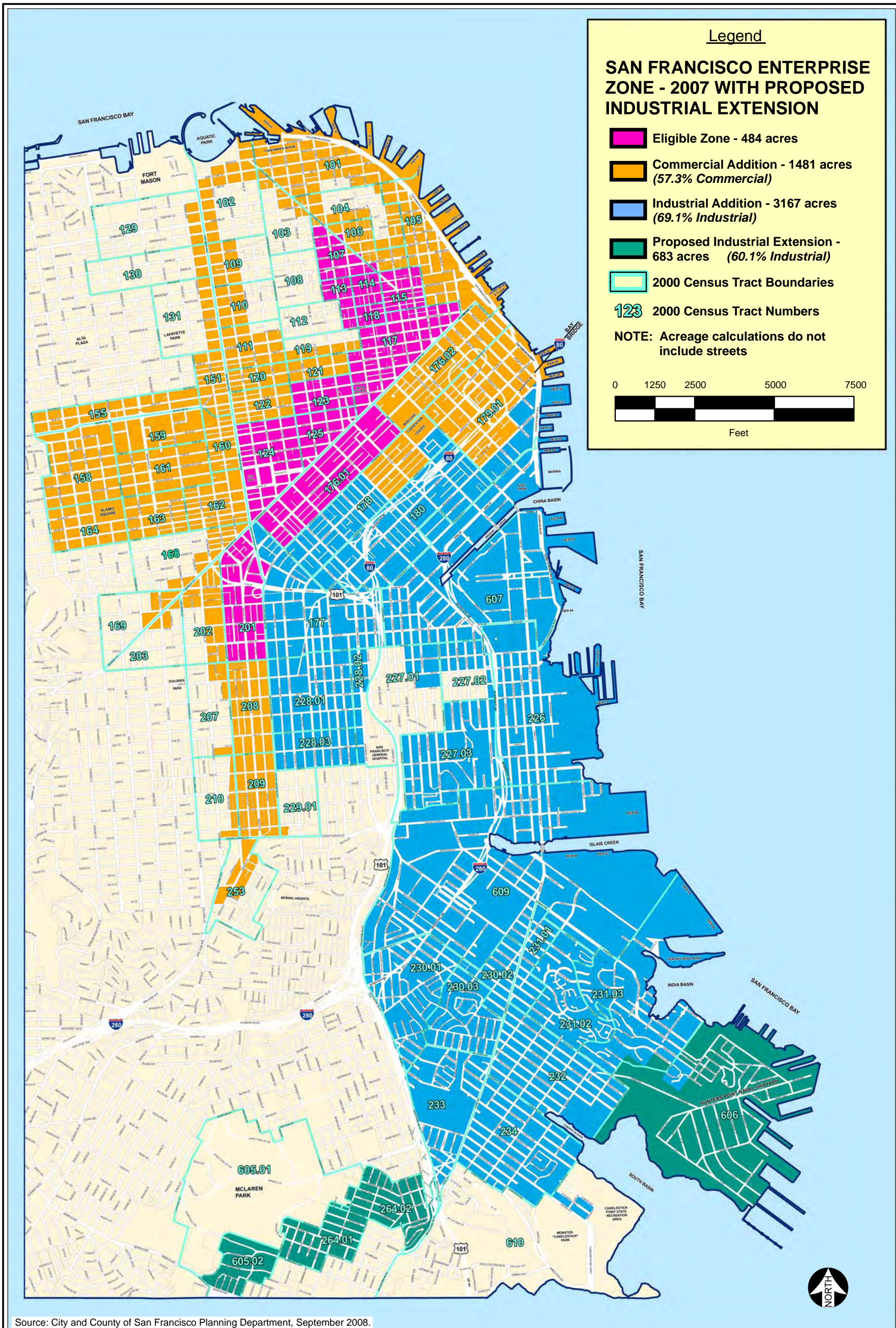


Figure IV-2
EZ Boundary Map and Census Tract Boundaries

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Zoning Use Districts

As discussed previously, EZ incentives would be applied to areas zoned for commercial and industrial use. No land is proposed to be rezoned as a result of implementation of the EZ. Specific development proposals would be subject to the underlying zoning classifications for their respective properties, as well as independent environmental review and approval at the time development is proposed. Zoning use districts regulate density, uses, lot size, floor area ratio, setback requirements, and other aspects of property use.

Figure IV-3 depicts the zoning use districts within the project area and the zoning use districts are listed in Table IV-3. It is reasonable to assume that the majority of development that would result from implementation of the EZ would fall within these use districts (excluding the residential use districts).

**Table IV-3
Zoning Use Districts and Redevelopment Areas Within the EZ***

Districts	Definitions	Acres	Percent
C-2	Community Business	210	3.8%
C-3-G	Downtown General Commercial	94	1.7%
C-3-O	Downtown Office	124	2.3%
C-3-O (SD)	Downtown Office Special Development	23	0.4%
C-3-R	Downtown Retail	52	1.0%
C-3-S	Downtown Support	45	0.8%
CCB	Chinatown Community Business	12	0.2%
C-M	Heavy Commercial	38	0.7%
CR-NC	Chinatown Residential/Neighborhood Commercial	18	0.3%
CVR	Chinatown Visitor Retail	6	0.1%
HP-RA	Bayview Hunters Point Redevelopment	504	9.2%
M-1	Light Industrial	436	7.9%
M-2	Heavy Industrial	876	15.9%
MB-O	Mission Bay Office	11	0.2%
MB-OS	Mission Bay Open Space	16	0.3%
MB-RA	Mission Bay Redevelopment Area	206	3.7%
NC-1	Neighborhood Commercial Cluster	9	0.2%
NC-2	Small-Scale Neighborhood Commercial	21	0.4%
NC-3	Moderate-Scale Neighborhood Commercial	86	1.6%
NCD	Neighborhood Commercial District	41	0.8%
NC-S	Neighborhood Commercial Shopping Center	12	0.2%
NCT	Neighborhood Commercial Transit	18	0.3%
NCT-3	Moderate-Scale Neighborhood Commercial Transit	27	0.5%
P	Public Use	588	10.7%
PDR-1	Light Industrial Buffer	16	0.3%
PDR-2	Production, Distribution, and Repair	410	7.5%
RC-3	Residential-Commercial Combined Medium Density	2	0.0%
RC-4	Residential-Commercial Combined High Density	135	2.4%
RED	Residential Enclave	12	0.2%
RH DTR	Residential, House Downtown Residential	33	0.6%

Table IV-3 (Continued)
Zoning Use Districts and Redevelopment Areas Within the EZ*

Districts	Definitions	Acres	Percent
RH-1	Residential, House One-Family	449	8.2%
RH-1 (D)	Residential, House One-Family (Detached Dwellings)	8	0.1%
RH-1 (S)	Residential, House One-Family with Minor Second Unit	2	0.0%
RH-2	Residential, House Two-Family	232	4.2%
RH-3	Residential, House Three-Family	93	1.7%
RM-1	Residential, Mixed Low Density	188	3.4%
RM-2	Residential, Mixed Moderate Density	62	1.1%
RM-3	Residential, Mixed Medium Density	58	1.0%
RM-4	Residential, Mixed High Density	25	0.5%
RSD	Residential/Service Mixed Use District	34	0.6%
RTO	Residential, Transit-Oriented Neighborhood	23	0.4%
SLI	Service/Light Industrial	108	2.0%
SLR	Service/Light Industrial/Residential	86	1.6%
SPD	South Park District	3	0.1%
SSO	Service/Secondary Office	40	0.7%
TB DTR	Transbay Downtown Residential	12	0.2%

* Total acreage for all zoning use districts within the EZ is 5,503. This total does not equal total acreage of EZ because streets are not included, only parcels.

Source: City and County of San Francisco Planning Department, October 2008.

Table IV-4 shows the acreage for each height and use district within the project area. The use and height and bulk districts do not offer a means by which growth or development within the project area could be measured. Rather, this information is provided to illustrate the land use and development standards to which new development would be required to adhere.

Table IV-4
Height and Use Districts Within the EZ*

District	Acres	District	Acres	District	Acres
30-X	20.2	105-F	37.7	200-X	1.8
40-X	2,158.8	105-J	0.3	85/200-R	4.4
40-X/50-X	1.1	105-K	4.9	220-G	2.3
40-X/85-B	29.8	105-X	2.3	225-S	4.9
50-N	18.0	110	11.5	225-X	0.8
50-X	579.5	110-X	1.2	240-E	4.8
50-X/85-X	1.6	120-F	1.8	240-H	1.6
55-X	0.3	120-R-2	5.0	240-S	3.3
60-X	6.8	120-X	23.4	250-S	12.8
45/65-R	0.1	80-T-120-T	11.9	85/250-R	2.5
65-85-N	5.1	130-B	14.2	85/250-R-2	0.6

Table IV-4 (Continued)
Height and Use Districts Within the EZ*

District	Acres	District	Acres	District	Acres
65-A	37.5	130-E	21.9	275-E	12.4
65-A-1	0.7	130-F	3.6	285-S	0.3
65-B	22.9	130-G	7.7	300-S	24.4
65-D-2	0.2	130-L	4.1	120/320-R-2	3.5
65-J	514.0	130-V	10.6	320-I	7.6
65-N	14.2	80-130-F	51.3	320-S	2.3
65-X	68.8	80-130-X	1.8	340-I	23.5
70-X	1.4	80-T-130-T	11.1	350-S	13.1
75-X	3.6	135-X	0.6	350-X	1.0
80-A	13.9	140-H	1.9	120/400-R-2	3.1
80-B	21.0	150-S	14.5	400I	0.04
80-E	64.2	150-X	15.9	400-I	8.3
80-K	6.2	85/150-R	0.9	400-S	13.3
80-T	52.5	160-B	2.4	400-W	3.5
80-X	46.0	160-D	11.1	400-X	3.6
84-E	16.0	160-F	22.2	65/400-R	1.1
84-J	8.8	160-H	2.4	85/400-R	2.3
84-X	13.6	160-M	0.6	45/450-R	0.4
84-X-2	6.1	160-S	3.2	450-S	10.3
85-X	26.7	165-I	3.1	500-I	3.1
90-X	14.3	180-S	1.5	500-S	8.7
96-X	5.1	120/200-R-2	1.8	45/550-R	0.9
100-G	2.3	200-400-S	1.7	550-S	7.3
100-X	0.1	200-I	2.5	HP-RA	497.3
105-A	0.4	200-L	0.5	MB-RA	257.2
105-E	5.3	200-S	36.9	OS	321.0

* Total acreage for all height and use districts within the EZ is 5,406.2. This total does not equal total acreage of EZ because streets are not included, only parcels.

Source: City and County of San Francisco Planning Department, October 2008.

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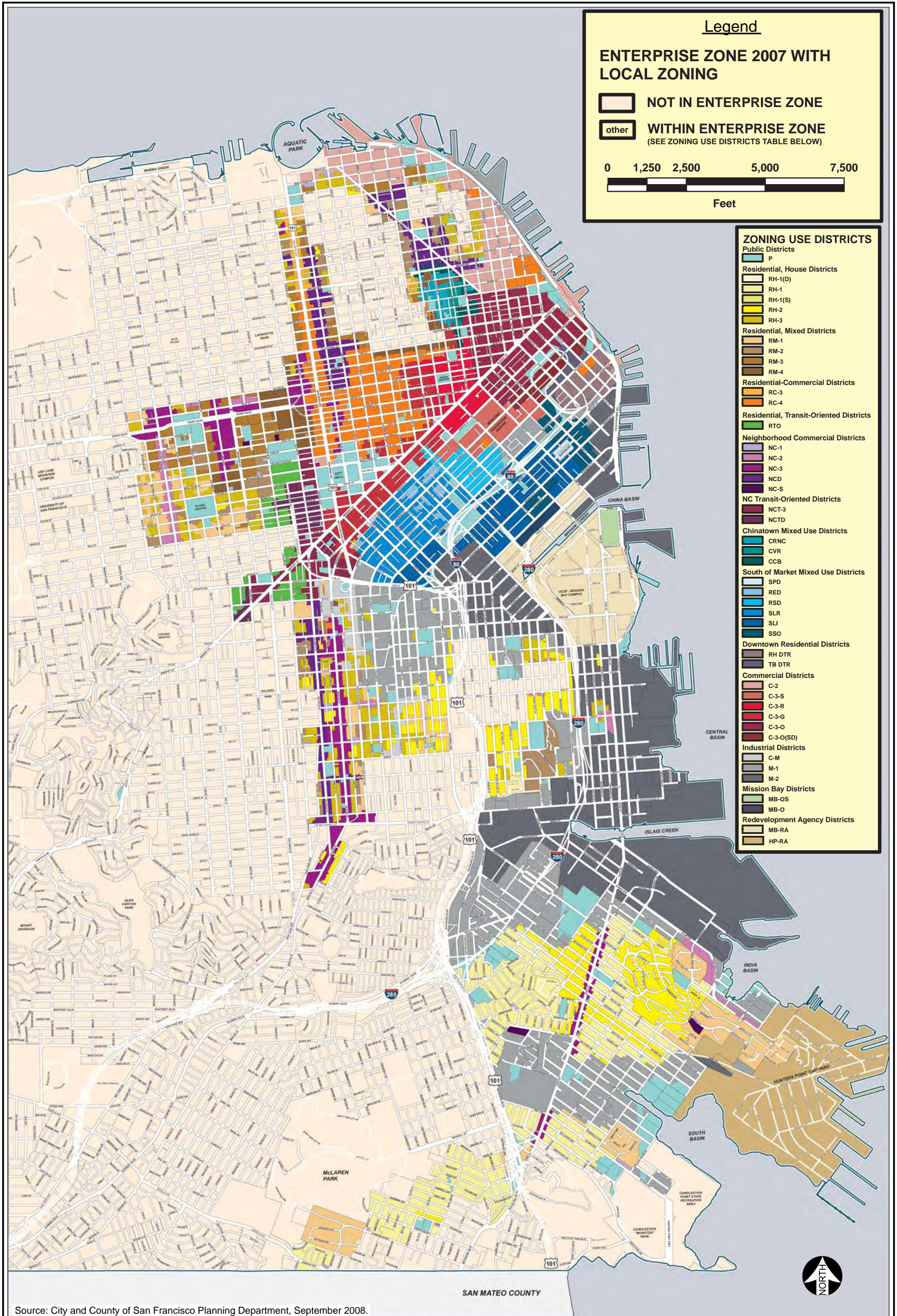


Figure IV-3
Zoning Use Districts Within the EZ

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Permitted Floor Area Ratio

Per Section 102.11 of the City and County of San Francisco Municipal Code, the floor area ratio is defined as the ratio of gross floor area of all the buildings on a lot to the area of the lot. Table IV-5 shows the permitted floor area ratio for each building or development in the use districts within the EZ.

**Table IV-5
Floor Area Ratios Within the EZ**

District	Basic Floor Area Ratio Limit
RM-1, RM-2, RTO	1.8 to 1
RM-3	3.6 to 1
RM-4	4.8 to 1
RC-1, RC-2	1.8 to 1
RC-3	3.6 to 1
RC-4	4.8 to 1
RSD, SPD	1.8 to 1
NC-1	1.8 to 1
NC-S	
North Beach	
NC-2	2.5 to 1
Broadway	
Upper Fillmore	
Polk	
Valencia	
24 th Street - Mission	3.0 to 1
Hayes-Gough	
Upper Market	3.6 to 1
NC-3, NCT-3	
Chinatown R/NC	1.0 to 1
Chinatown VR	2.0 to 1
Chinatown CB	2.8 to 1
C-2	3.6 to 1
C-3-O	9.0 to 1
C-3-R	6.0 to 1
C-3-G	6.0 to 1
C-3-S	5.0 to 1
C-3-O (SD)	6.0 to 1
C-M	9.0 to 1
M-1, M-2	5.0 to 1
SLR, SLI	2.5 to 1
SSO and in a 40 or 50 foot height district	3.0 to 1
SSO and in a 65 or 80 foot height district	4.0 to 1
SSO and in a 130 foot height district	4.5 to 1
<i>This table incorporates by reference the Section 124 Subsections (a) through (j) of the City and County of San Francisco Municipal Code.</i>	
<i>Source: Section 124 of the City and County of San Francisco Municipal Code.</i>	

C. PROJECT CHARACTERISTICS

The State of California approved the Enterprise Zone Act in 1985, which established a mechanism to stimulate employment generation and business growth in economically distressed areas throughout the state. The previous San Francisco EZ is one of 42 enterprise zones throughout California. The proposed project consists of renewing and reestablishing San Francisco's EZ and modifying the geographic boundaries of the previous EZ (established on May 28, 1992). Its designation ended in 2007 and is currently a conditionally designated EZ.

The EZ is a long-term (15-year) partnership with local governments and private companies to generate new private sector investment and growth. The State provides performance based tax incentives to EZ businesses to revitalize chronically deteriorated areas; hire the most difficult-to-hire residents in private sector jobs; and retain, expand, and reward businesses that participate in the abovementioned State objectives.

An EZ is an area in which companies are eligible for State incentives and programs not available to businesses located outside of the EZ. State incentives available to companies include:

- tax credits for sales and use tax paid on machinery purchases;
- tax credits for hiring qualified employees;
- interest deductions for lenders on loans to firms within an EZ;
- fifteen year net operating loss carry-forward;
- accelerated expensing deduction; and
- priority for various State programs, such as State contracts.

EZs must be located in areas that are considered economically depressed with higher than average unemployment rates. The California Department of Housing and Community Development (HCD) shall award bonus points to EZs meeting minimum thresholds points and at least two of three criteria related to poverty level, unemployment rate, and a unique distress factor affecting long-term economic development. Of the households in the project area, 22 percent are below the poverty level for 2000, which meets one of the criteria. With respect to a unique distress factor, the project area includes most of the City's low-income population areas, core commercial and industrial areas, and the City's largest African American and Latino neighborhoods. The project area, and the City as a whole, are experiencing acute changes related to rising income inequality and diminishing middle-class job opportunities. The City has seen an exodus of low- and middle-income families, which has led to rising instability, crime, and gang violence in many formerly stable and thriving low-income communities. By offering incentives and programs only available in EZs, these areas can attract and retain companies that would not otherwise locate, stay, or expand there. Both existing companies and new companies can take advantage of the incentives.

The EZ designation does not authorize any new development that conflicts with existing land use plans, codes, and ordinances of the participating jurisdictions. The EZ designation merely seeks to foster more investment in areas already set aside for development, specifically those areas zoned for commercial and industrial use.

The EZ consists of a comprehensive marketing strategy, job development, vouchering plan and vouchering fee remittance plan, business and real estate financing plans, planning and local incentives, an inventory of vacant buildings and sites, infrastructure analysis, and capital improvement plan.

Development Scenarios

Rate of Growth

Several studies^{1,2} have attempted to assess the fiscal effectiveness of EZs. Some studies have shown employment in EZs to grow twice as fast as in areas without the EZ designation, while other studies have shown that the EZ benefits in most areas are too small to have a significant effect on creating employment or business growth. The most conservative study model, examined in a book by Peters and Fisher,³ concluded that only 10 percent of job growth is due to programs implemented through the EZ.⁴ Peters and Fisher evaluated 75 EZs located in 13 states to gain an understanding of the overall effectiveness of state EZs.⁵ Overall, it is difficult to attribute a specific rate of development to implementation of an EZ. Despite disagreement as to the economic benefits associated with an EZ, affected local communities typically benefit from increased infill development and reduced blight.

The purpose of the analyses contained in this Draft EIR is not to assess the success and/or the amount of growth of the EZ program, but rather to measure potential environmental impacts resulting from implementation of the EZ. Approximately half of the EZ contains four governing area plans, which include: Bayview Hunters Point Redevelopment Plan; Rincon Hill Plan; Eastern Neighborhoods Rezoning and Area Plans; and Market and Octavia Neighborhood Plan. Because the EZ overlay was in place at the time the area plan EIRs were being prepared, it is assumed that EZ-related growth was included in the projections. Therefore, this Draft EIR does not evaluate growth attributed to the implementation of the EZ beyond what was evaluated in the governing area plan EIRs. The relationship between the area plans and the EZ is discussed in more detail below in the “Relationship to Other EIRs” subsection.

¹ *Applied Development Economics, Cost Benefit Analysis of California’s Enterprise Zone Program, June 5, 2003.*

² *Non-Profit Management Solutions and Tax Technology Research LLC, Report to the California Department of Housing and Community Development of Enterprise Zones, August 18, 2006.*

³ *Peters, A. H., & Fisher, P. S. (2002). State Enterprise Zones Programs: Have they worked? Kalamazoo, Michigan: W. E. Upjohn Institute for Employment Research.*

⁴ *Applied Development Economics, Cost Benefit Analysis of California’s Enterprise Zone Program, June 5, 2003.*

⁵ *W.E. Upjohn Institute, State Enterprise Zone Programs: Have They Worked?, website: <http://www.upjohninst.org/publications/titles/sezp.html>, Accessed November 23, 2009.*

For the analysis associated with the “other areas”, or geographic areas that have no associated programmatic area plan or redevelopment plan EIR from which to tier, the analysis in this Draft EIR assumes the most conservative growth estimate discussed above would be associated with implementation of the EZ (i.e., 10 percent of job growth and directly related new development is due to programs implemented through the EZ). However, it is unlikely that implementation of the EZ would result in any new significant impacts due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas” (listed in Tables IV-3 and IV-4, respectively). Therefore, this Draft EIR assumes that while approximately 10 percent of job growth and directly related new development in “other areas” could be attributable to implementation of the EZ, it is unlikely that project implementation would result in any new development due to required compliance with the aforementioned land use controls.

The San Francisco General Plan contains a number of area plans (including the ones previously listed) that contain many land use objectives and policies for specific areas of the City. These objectives and policies, in addition to the zoning use districts and the height and use districts, illustrate the land use and development standards to which new development under the EZ would be required to adhere.

Development throughout the EZ would not exceed General Plan or Area Plan buildout projections. While it is possible that implementation of the EZ could accelerate development projected under the San Francisco General Plan governing the project area, the possible rate of acceleration is difficult, if not impossible, to measure with certainty. In an effort to provide additional detail, elements of possible development scenarios have been outlined below that could occur with implementation of the EZ. These development proposals are assumed to be within the projections of the General Plan, and thus do not warrant additional or separate environmental analysis under the methodology used in this Draft EIR. Rather, inclusion of these development proposals serve to provide information on the type of development that could occur and are not the basis for evaluating environmental impacts.

Opportunities for Development

The San Francisco EZ aims to diversify the local economic base by:

- Revitalizing the community and positioning it for future growth by focusing on and developing industries that are predicted to emerge and expand, such as the merging knowledge industries of biotechnology, clean technology, and digital media;
- Creating higher-wage jobs that are currently provided by existing industries, especially in the industrial clusters, knowledge industries, and tourism industries;
- Widening occupational choices for local workers and providing opportunities for upward mobility in the labor force across all industries; and

- Stabilizing the community from facing job losses by continuing to provide and support community services that assist workers in finding jobs via placement services.

Specific EZ objectives are outlined below. These objectives would be measured on an annual basis during the life of the EZ. The EZ local incentives are specifically designed to support the mission by making it easier for businesses to create and sustain businesses and employees within the EZ.

It is assumed that the new jobs added through implementation of the EZ would be primarily filled by existing residents of the greater San Francisco area and, as a result, the project would not result in direct population growth. While implementation of the EZ does not authorize specific development, there are several scenarios that can be extrapolated from the economic incentives that would be provided to the project area. Table IV-6 illustrates an example of the annual retention, expansion and attraction of firms and jobs to the project area that could be generated by these programs as a result of the EZ designation. The growth of these organizations would occur within the existing zoning parameters governing the project area.

**Table IV-6
Retention, Expansion, and Attraction of Firms and Jobs**

Responsible Organization	Funding	# of Staff	# of Existing Firms	Commercial		Industrial	
				# Firms (Goal)	# Jobs (Goal)	# Firms (Goal)	# Jobs (Goal)
San Francisco Chamber of Commerce	Membership	25	1,995	2,000 retained/ expanded/ attracted	248,000 retained/ created	5 retained/ expanded	1,000 retained/ created
Asian Business League	Foundations, corporate sponsorship, membership	1	20	20 retained/ expanded/ attracted	200 retained/ created	20 retained/ expanded across all industries	200 retained/ created
JETRO	Japanese government and nonprofits	20	20	20 retained/ expanded / attracted	About 200 retained/ created	20 attracted	About 200 retained/ created
Mission Merchant's Association	Membership	0	145	3,000 retained/ expanded	About 15,000 retained/ created		
Private Industry Council	Federal, state, private foundations	30	1,106	1,106 retained/ expanded	About 5,000 retained/ created		
Backstreet Business Advisory Board	City government	0.5					

Table IV-6 (Continued)
Retention, Expansion, and Attraction of Firms and Jobs

Responsible Organization	Funding	# of Staff	# of Existing Firms	Commercial		Industrial	
				# Firms (Goal)	# Jobs (Goal)	# Firms (Goal)	# Jobs (Goal)
San Francisco Center for Economic Development	Private investors	2	98	98 attracted across all sectors			
Bay Area Marketing Partnership	Membership/ Bay Area economic development agencies	1.25	10	10 attracted across all sectors			

Source: San Francisco Enterprise Zone Application, 2006.

Table IV-7 provides baseline data for possible opportunities for development within the project area. Figure IV-4 illustrates the location of vacant commercial and industrial buildings and sites within the project area.

The sections above provide a snapshot of the type of development that could occur, the land use constraints that would be placed on development through zoning regulations, and the areas that could be developed as a result of implementation of the EZ. Even with this data, it is not possible to draw a quantitative conclusion as to the rate of growth under the EZ as compared to buildout projected under the General Plan and associated area plans. As noted above, the rate of development resulting from EZ designation is debatable and cannot be measured with certainty. For the purposes of this Draft EIR, the most feasible way to present growth under the EZ is to disclose the possible areas and means by which development could take place. It will be assumed that future projects that may result from implementation of the EZ would be required to adhere to the applicable zoning regulations and undergo the appropriate environmental review for each individual project within the EZ.

**Table IV-7
Baseline Business Development Data**

Type of Land	Square Feet/Acres
Vacant buildings on land zoned industrial that meet all local and State building, fire, and seismic codes, as well as other codes necessary to operate the facility.	14,622,020 sf
Vacant buildings on land zoned commercial that meet all local and State building, fire and seismic codes, as well as other codes necessary to operate the facility.	8,312,209 sf
Area included in the EZ	5,815 acres
Vacant improved land zoned industrial. "Improved land" used in this subsection means that all infrastructure necessary to operating from the site is available to deliver water, power, sewer, and traffic services	621.46 acres
Vacant improved land zoned commercial	312.54 acres
Vacant "unimproved" land zoned industrial	0 acres
Vacant "unimproved" land zoned commercial	0 acres
Number of industrial businesses in the EZ	5,807
Number of commercial businesses in the EZ	24,710
2003 vacancy rate for commercial space	22 percent
2003 vacancy rate for industrial space	7.5 percent
<i>Source: San Francisco Enterprise Zone Application, 2006.</i>	




Relationship to General Plan

The General Plan contains the following area plans that cover their respective geographic areas of the City: Downtown, Civic Center, Western Shoreline, Northeastern Waterfront, Central Waterfront, South Bayshore, Rincon Hill, Chinatown, Van Ness Avenue and South of Market. In these areas the more general policies in the General Plan elements are made more precise as they relate to specific parts of the City. The proposed EZ will include areas covered by all of the aforementioned area plans with the exception of Western Shoreline. Several of these area plans are in the process of being updated. There are no plans to rezone land as a result of a potential inclusion within the San Francisco EZ.

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Legend

**PROPOSED SAN FRANCISCO
ENTERPRISE ZONE - 2007
VACANT SITES MAP**

-  Enterprise Zone Boundary
-  Vacant Sites
-  2000 Census Tract Boundaries

123 2000 Census Tract Numbers

Total Vacant Sites: 1,989

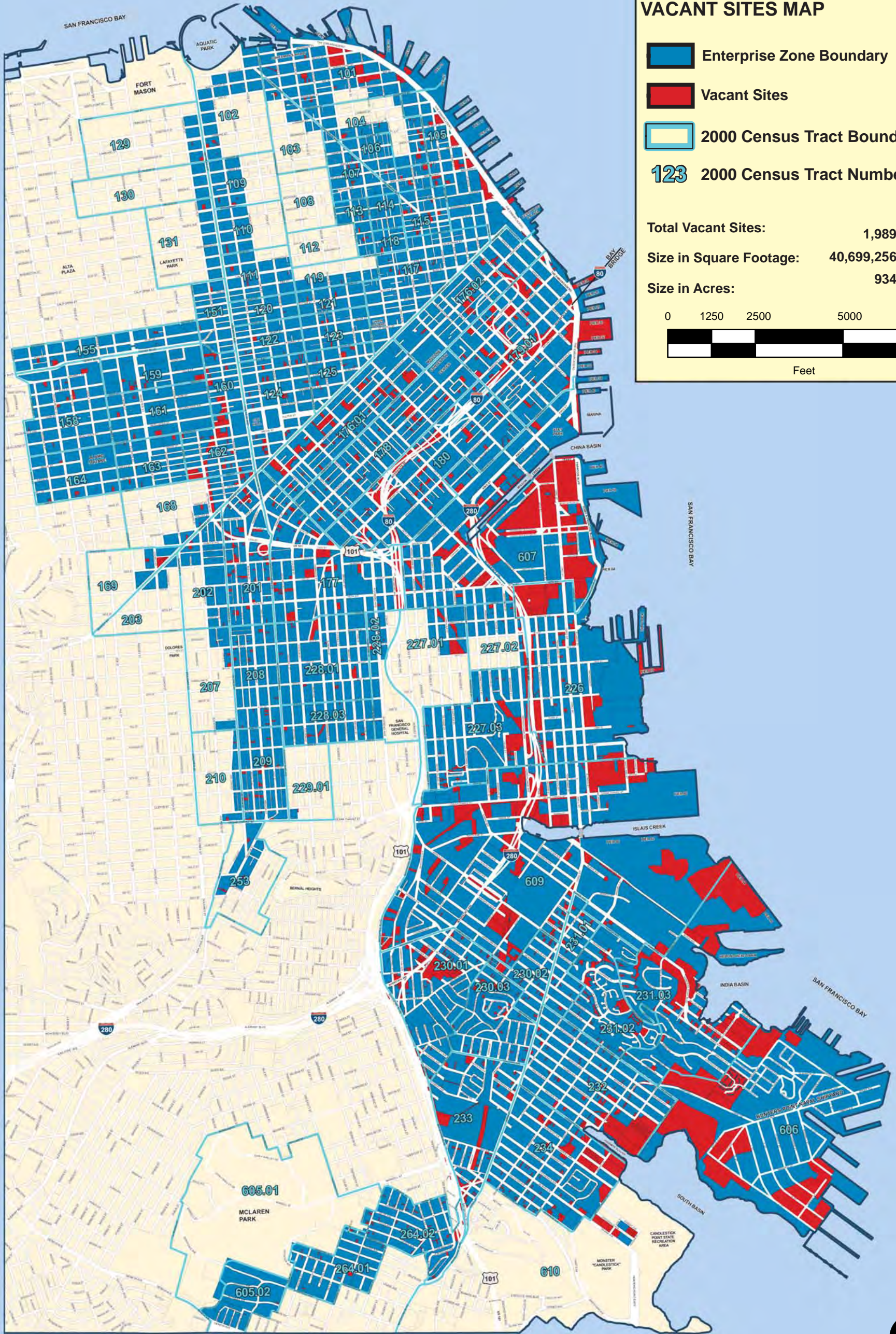
Size in Square Footage: 40,699,256

Size in Acres: 934

0 1250 2500 5000 7500



Feet



Source: City and County of San Francisco Planning Department, September 2008.

Figure IV-4
Vacant Sites Map

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The establishment of an EZ does not change any land use designations, and does not propose any specific development; rather, it is an overlay designation. Future projects within the EZ are subject to existing zoning designations and would require lead agency approval actions and environmental review under CEQA. Under State law, all development applications, including applications within the project area, must be consistent with the General Plan, Zoning Ordinance, and all other applicable codes and ordinances within the jurisdiction in which each project is located. Development applications that are not consistent with the General Plan or Zoning Ordinance must receive approval of a General Plan amendment or rezoning prior to development.

The General Plan is based on a creative consensus concerning social, economic, and environmental issues. The General Plan currently contains the following elements: Residence, Commerce and Industry, Recreation and Open Space, Community Facilities, Transportation, Community Safety, Environmental Protection, Urban Design and Arts. In addition, a Land Use Index cross-references the policies related to land use located throughout the General Plan.

Relationship to Other EIRs

The majority of the project area is within the geographic boundaries of the areas analyzed in the following area plan EIRs (see Figure IV-5):

- Bayview Hunters Point Redevelopment Plan EIR
- Rincon Hill Plan EIR
- Eastern Neighborhoods Rezoning and Area Plans EIR
- Market and Octavia Neighborhood Plan EIR

Where appropriate, this Draft EIR is tiered from the area plan EIRs listed above. As explained in CEQA Guidelines Section 15152(a):

“Tiering” refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.

In essence, tiering allows for the preparation of environmental documents using a multi-level approach where the first tier includes analysis of general matters contained in a broader EIR (e.g., analyzing the impacts of an entire plan, program, or policy) and subsequent tiers include analysis of narrower projects with later EIRs (incorporating by reference the general discussions from the broader EIR and focusing only on the impacts of individual projects that implement the plan, program, or policy). As explained in CEQA Guidelines Section 15152(b):

This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration.

In this case, an EIR has been prepared for the EZ because submission of an EIR is required as part of the EZ application process, not due to potentially significant impacts. This Draft EIR differs somewhat from a typical second-tier analysis in the sense that it does not analyze a subsequent, narrower project that was previously identified in a broader scope document. A typical example of a second-tier analysis would be a project-specific EIR that addresses a specific development project that was generally identified in a previously prepared programmatic EIR (i.e., a Specific Plan EIR or General Plan EIR). The EZ was not identified as a potential project in the existing General Plan, which has not been evaluated in an EIR, though an EZ was in effect at the time of adoption. Notwithstanding this distinction, the concept of tiering still applies as the appropriate method for analyzing the potential environmental effects of the proposed EZ, as defined by the CEQA Guidelines. Thus, this Draft EIR discloses how the implementation of the proposed EZ, which would encourage development in the project area in accordance with the build-out scenarios analyzed in the governing area plan EIRs mentioned above, would not result in any new or greater significant impacts already identified in these EIRs.

Because the EZ would not result in new residential uses, this Draft EIR will focus on the non-residential components of the abovementioned area plan EIRs.

Bayview Hunters Point Redevelopment Plan EIR

The Bayview Hunters Point Redevelopment Plan EIR⁶ evaluated impacts within the 1,575-acre Bayview Hunters Point Redevelopment Plan area, the 126-acre India Basin Industrial Park Redevelopment Plan area, and the 20-acre Bayview Industrial Triangle Redevelopment Plan area. In total, the project may result in approximately 115,000 sf of cultural/institutional/educational uses; 50,000 sf of medical and health services uses; 220,000 sf management and information professional services; 425,000 sf of production, distribution and repair uses; 1,591,850 sf of retail and entertainment uses; and 5,000 sf of visitor lodging uses. The EIR estimates that these uses will require a total of 5,523 new employees.

⁶ EIR was certified March 2, 2006. Redevelopment Plan for the Bayview Hunters Point Redevelopment Project was adopted June 1, 2006.

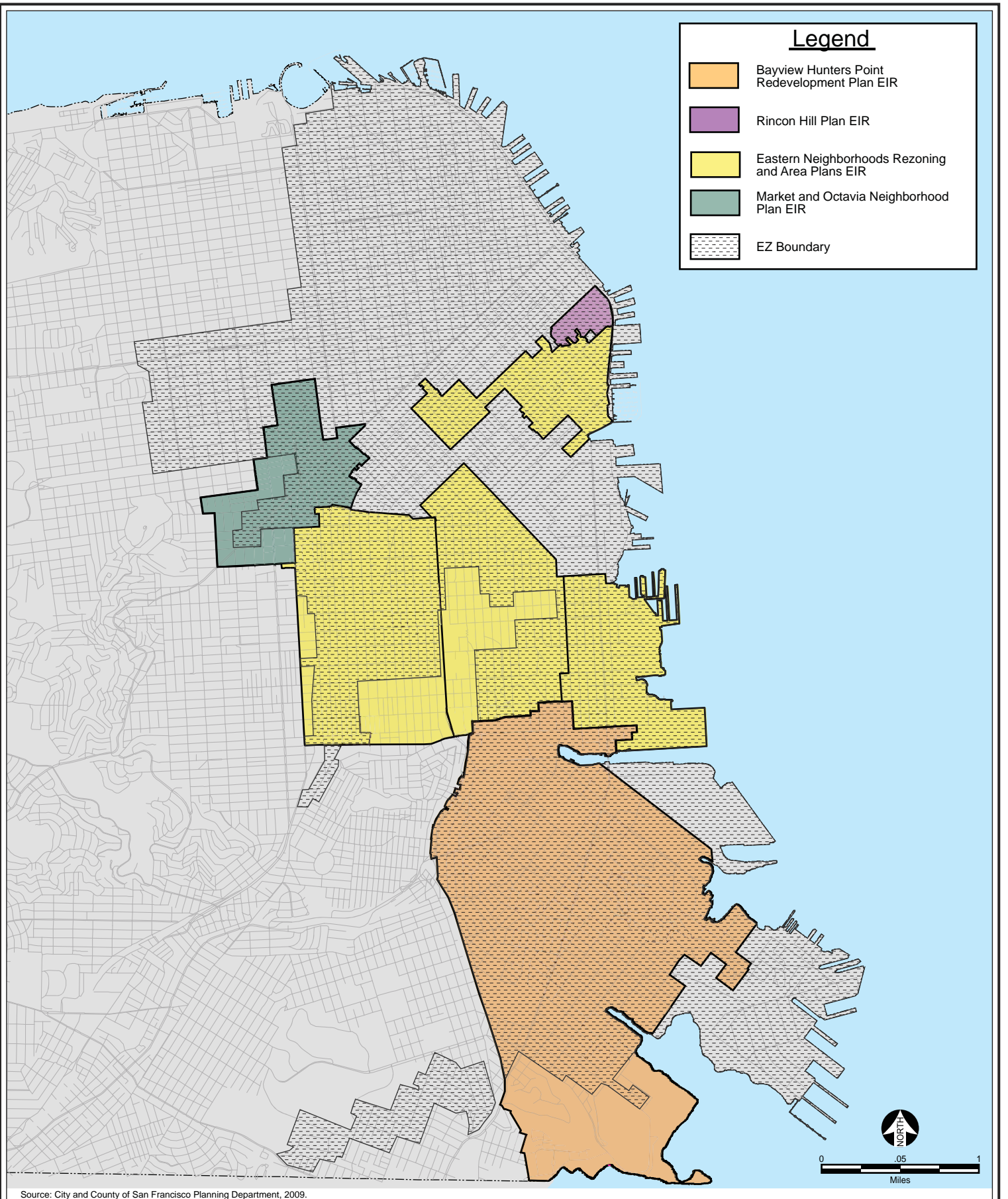


Figure IV-5
EIRs in the Project Area

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Rincon Hill Plan EIR

The Rincon Hill Plan EIR⁷ evaluated the impacts of a 55-acre rezoning plan in the northeast portion of the City. The plan may result in an increase of about 4,200 residential units, approximately 65,000 sf of retail uses, demolition of up to three historic structures, and height increases.

Eastern Neighborhoods Rezoning and Area Plans EIR

The Eastern Neighborhoods Rezoning and Area Plans EIR⁸ evaluated the impacts of three housing options for industrially zoned land (A-Low Housing, B-Moderate Housing, or C-High Housing) in four Eastern Neighborhoods (East SoMa, Mission, Showplace Square/Potrero Hill, and Central Waterfront). According to the Comments and Responses on the Draft EIR prepared for the Eastern Neighborhoods Rezoning and Area Plans, the zoning proposed with the Preferred Project is similar to Option B analyzed in the Draft EIR. The revisions to Option B that have resulted in the Preferred Project will increase development potential under this scenario, compared to that under Draft EIR Option B, but will still fall within the range of development potential that was contemplated in the Draft EIR for zoning Options A through C. The Planning Department estimates that the increased housing potential under the Preferred Project, compared to Option B as analyzed in the Draft EIR, will be approximately 2,400 residential units, for a total of about 9,785 new units by 2025, compared to approximately 7,385 new units under Option B as analyzed in the Draft EIR. The total of 9,785 new units will be similar to that forecast for EIR Option C, which was expected to result in about 9,860 new units by 2025. In addition, the Preferred Project will provide for a similar amount of PDR land as will Option B as analyzed in the Draft EIR (about 431 acres for the Preferred Project, compared to about 451 acres for Option B).

Market and Octavia Neighborhood Plan EIR

The Market and Octavia Neighborhood Plan EIR⁹ evaluated the impacts of a 376-acre rezoning project west of the Financial District, southwest of the Civic Center. The project may result in approximately 4,400 new housing units (approximately 7,100,000 sf); 60 new jobs; and 1,800,000 sf of non-residential uses.

Other Areas

Geographic areas that have no associated programmatic (area plan or redevelopment plan) EIR from which to tier are referred to as “other areas” in the Draft EIR. For the analysis associated with the “other areas”, it is assumed that development under the EZ would be conducted in accordance with existing

⁷ EIR was certified May 5, 2005. Rincon Hill Plan became effective September 15, 2005.

⁸ EIR was certified August 7, 2008. Eastern Neighborhoods Rezoning and Area Plans became effective January 19, 2009.

⁹ EIR was certified April 5, 2007. Market and Octavia Neighborhood Plan became effective May 30, 2008.

zoning regulations. It is also assumed that impacts in “other areas” would be similar to the impacts analyzed in the area plan EIRs discussed above.

D. INTENDED USES OF THE EIR

In the case of the EZ, the appropriate process for analyzing the project’s environmental effects is the preparation of a “Program EIR,” the type of EIR prepared for programs composed of a series of actions related either: (1) Geographically, (2) As logical parts in the chain of contemplated actions, (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways. This Draft EIR constitutes a “Program EIR” under Section 15168 of the CEQA Guidelines.

Under CEQA, the Lead Agency (City and County of San Francisco Planning Department) is the public agency with authority to certify the EIR and adopt the EZ. Before the EZ can be implemented, the City must certify this EIR. Certification of this EIR will allow the City to approve participation in the EZ and implement the incentives outlined previously in this section.

Under Section 15381 of the CEQA Guidelines, the Responsible Agency (California Department of Housing and Community Development [HCD]) is the public agency other than the Lead Agency that has discretionary approval authority over the HCD, and would utilize the EIR prepared for the discretionary approval. The HCD is the regulatory agency for the development of EZs throughout the state. All EZ applications are reviewed and approved by HCD.

Because the proposed project is not a development proposal, it does not require any permits from other State or federal responsible agencies. If a development application is submitted to one of the project proponents for development within the EZ, there is a possibility that one or several agencies would have permit approval authority. These agencies may include, but are not limited to, the California Regional Water Quality Control Board (San Francisco Bay Region), California Department of Fish and Game, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, the San Francisco Bay Conservation and Development Commission, and the Bay Area Air Quality Management District.

V. ENVIRONMENTAL SETTING AND IMPACTS

A. PLANS AND POLICIES

This section describes the major land use and development objectives, policies, and regulations embodied in the San Francisco General Plan and San Francisco Planning Code that pertain to the proposed project. The relationship to Redevelopment Area Plans that overlap the project area are also discussed. Regional plans pertaining to congestion management (Countywide Congestion Management Plan) and air quality (Bay Area Air Quality Plan) are discussed, respectively, in Section IV.F (Transportation and Circulation) and V.H (Air Quality).

Planning and regulatory control over the project site are governed by the City and County of San Francisco Planning Department and the City and County of San Francisco Redevelopment Agency (SFRA). Development in the project area is generally covered by the San Francisco General Plan, but the SFRA would exercise control over the 13 designated redevelopment areas located within the project area: the Western Addition A-1 and A-2 Redevelopment Plan Area, Yerba Buena Center Redevelopment Project Area, Transbay Redevelopment Project Area, Golden Gateway Redevelopment Project Area, Federal Office Building, India Basin Industrial Park, South of Market Redevelopment Project Area, Hunters Point Shipyard Area, Hunters Point Redevelopment Area, Mission Bay, Bayview Hunters Point Project Area, Bayview Industrial Triangle, and Rincon Point-South Beach.

SAN FRANCISCO GENERAL PLAN

The General Plan contains general policies and objectives to guide land use decisions, and contains some policies that relate to physical environmental issues. As part of the project approval and adoption process, the proposed project will be reviewed by the Planning Department and the City Planning Commission to make findings of consistency with objectives, policies, and principles of the General Plan at the program level. Decision-makers may identify potential conflicts between specific projects and goals and policies of the General Plan. During the review process, the decision-makers must evaluate and balance the potentially conflicting goals of different General Plan policies. Elements of the General Plan that apply to the proposed project include the following:

- Air Quality Element;
- Commerce and Industry Element;
- Community Facilities Element;
- Community Safety Element;
- Environmental Protection Element
- Housing Element;
- Recreation and Open Space Element;

- Transportation Element; and
- Urban Design Element.

The proposed EZ will include areas covered by all of the following area plans: Downtown, Civic Center, Northeastern Waterfront, Central Waterfront, South Bayshore, Rincon Hill, Chinatown, Van Ness Avenue, Market and Octavia, Bayview Hunters Point, East SoMa (South of Market Area), and South of Market.

The EZ does not propose any specific development and would not change existing land use designations; rather, it is an overlay designation. Any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies of the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans.

SAN FRANCISCO PLANNING CODE

The San Francisco Planning Code, which incorporates by reference the City's Zoning Maps, governs permitted uses, densities and the configuration of buildings in San Francisco. Permits to construct new buildings (or to alter or demolish existing ones) cannot be issued unless either the proposed action conforms to the Planning Code, or an exception is granted pursuant to provisions of the Planning Code, or a reclassification of the site occurs. For a discussion of the zoning use districts and height and bulk districts located within the project site, refer to Section V.B (Land Use).

V. ENVIRONMENTAL SETTING AND IMPACTS

B. LAND USE

INTRODUCTION

This section addresses potential project impacts related to physically established communities; applicable land use plans, policies, and regulations; and the existing character of the vicinity. Section IV (Project Description) addresses the intended uses of the EIR. Section V.A (Plans and Policies) discusses relevant plans and codes with regard to land use.

ENVIRONMENTAL SETTING

Existing Land Uses

The 5,815-acre project area extends through many neighborhoods, primarily Fisherman's Wharf, North Beach, Chinatown, Downtown/Civic Center, Financial District, Western Addition, Haight, South of Market, South Beach, Mission Bay, Potrero Hill, Mission District, Central Waterfront, Bayview Hunters Point, and Visitacion Valley. The project area is in the northeastern and southeastern quadrants of the City (refer to Figure IV-2 in Section IV [Project Description]).

The project area includes a mix of land uses, including residential, neighborhood retail, institutional and cultural, commercial, industrial, and open space, which are predominantly dense and urban. Market Street transects the project area from its eastern edge near the Ferry Building to Sanchez Street at the western edge of the project area. North of Market Street, the project area includes the Financial District to the east, which is the City's primary area of high-rise buildings, including the Transamerica Pyramid; and Fisherman's Wharf to the north, a popular tourist attraction along the waterfront that includes Ghirardelli Square. To the west, the project area encompasses the Western Addition neighborhood, which consists primarily of attached low-rise single- and multi-family residential units; and Haight, which consists of commercial and residential uses. North of Market Street, the project area includes North Beach, a semi-compact neighborhood comprised mostly of three-story buildings; Chinatown, the City's most densely populated neighborhood; Downtown/Civic Center, the focal point of the City's public institutions, City Hall, government buildings, and performing arts centers including the Opera House, the Asian Art Museum, and the Main Library.

South of Market Street, the project area includes South Beach, a medium-density mixed-use neighborhood that includes AT&T Park; Mission Bay, primarily comprised of biotechnology research and development uses and condominium units; and Central Waterfront, a mixed-use neighborhood of residential and production, distribution, and repair (PDR) businesses. To the south, the project area encompasses Bayview Hunters Point, comprised of well-established residential uses and major industrial areas, and Visitacion Valley, a low-density residential neighborhood. The project area includes the Mission District to the west, a mixed-use neighborhood of residential, PDR, and commercial uses. The

project area includes Potrero Hill, a neighborhood with residential uses and large tracts of land used for industrial purposes; and South of Market, which includes warehouses, office buildings, and discount supply outlets and residential uses.

Existing Zoning

There are a total of 46 zoning use districts within the project area, reflecting a mix of zoning (refer to Table IV-3 and Figure IV-3 in Section IV [Project Description]). The most predominant districts in the project area are Industrial (M-1 and M-2) Districts, located primarily in the Bayview Hunters Point and Potrero Hill areas. In addition to providing land for industrial development, these districts are separated from Residential Districts. Most of the land zoned M-2 is controlled by the Port of San Francisco.

The second most predominant districts are Public Use (P) Districts, located throughout the project area. P Districts include City-owned land that is primarily used for open space, parks, and schools.

Residential zoning districts consist largely of multi-family and mixed use. Existing residential zoning districts within the project area are Residential House (RH) and Residential, Mixed (RM) Districts located primarily in the Western Addition Area and near Van Ness Avenue north of Market Street. South of Market Street, RH and RM Districts are located primarily in the Potrero Hill, Mission District, and Bayview areas.

Production, Distribution, and Repair (PDR) Districts are located in the Central Waterfront Area and in the Mission District. PDR Districts are free from inherent economic and operational competition and conflicts with housing, large office developments, and large-scale retail, which are not permitted. These districts share a need for flexible operating space, including large open interior spaces, high ceilings, and freight loading docks and elevators.

Neighborhood Commercial Districts (NCDs) are located along Columbus Avenue, Polk Street, Valencia Street, Hayes Street, the intersection of Hayes and Gough Streets, and upper Market Street. Dwelling units are allowed at a density ratio not exceeding the number of dwelling units permitted in the nearest Residential District, with some limiting provisions.

Downtown Commercial (C-3-O, C-3-R, C-3-G, and C-3-S) Districts are located along Market Street. Besides a wide-range of commercial uses with citywide or regional focus, these districts also allow at least one dwelling unit for each 125 square feet of lot area. Heavy Commercial (C-M) Districts are located in the South of Market Area and in portions of the Mid-Market Area. These districts allow most of the same commercial uses, although at a lower scale, as the C-3 zoning districts, but do not allow residential uses except with conditional use authorization.

Existing Height and Bulk Districts

There are a total of 111 height and bulk districts within the project area, reflecting a variety of height limits throughout the project area (refer to Table IV-4 in Section IV Project Description). The most

predominant height and bulk limit within the project area is 40-X, which allows building up to 40 feet high without bulk constraints. This District is located along the waterfront, in the Potrero Hill, Bayview, Fisherman's Wharf, and North Beach areas. Generally, taller buildings are allowed in and around the Downtown/Civic Center, Financial District, and South of Market areas, while height limits are lower in the southernmost and easternmost areas of the project area.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Physically divide an established community;
- 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; or
- Have a substantial impact upon the existing character of the vicinity.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. As discussed in Chapter IV (Project Description), because an EZ overlay was in place at the time the EIRs were prepared, the governing area plans within the EZ assumed EZ-related growth in the projections. Therefore, this Draft EIR does not evaluate growth attributed to the implementation of the EZ beyond what was evaluated in the governing area plan EIRs. The areas outside those covered by a previously prepared programmatic EIR are referred to as "other areas". Land use impacts related to the area plans and "other areas" are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan will change the existing land use character of Bayview Hunters Point. The industrial base in the northern and southern portions of the area will be largely retained and the Plan will preserve approximately 484 acres of existing industrial areas for existing and future industrial uses, thereby helping to continue the area's role as the City's primary industrial base. However, some amount of new development will be expected to occur on existing industrial land with implementation of the Plan.

According to the Bayview Hunters Point Redevelopment Plan EIR, land use changes resulting from the Plan will be consistent with redevelopment goals to eliminate economic and physical blight within Bayview Hunters Point, the land use vision, goals and recommendations of the Bayview Hunters Point community, and Citywide goals to increase housing supply, particularly affordable housing. The Area Plan will generally change existing land use in the area to create development nodes that locate and concentrate new development in appropriate locations, and to establish buffer zones that would avoid conflicts among existing and new residential, industrial and mixed-use development.

Although major changes in land use patterns will result from implementation of the Area Plan, these changes will not result in a significant adverse impact on land use character in Bayview Hunters Point, based on the analysis above. None of the proposed zoning changes and resulting land use changes would physically divide an established community or adversely change the character of an established community. In conclusion, all impacts related to land use are considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, implementation of the Rincon Hill Plan will increase residential densities in an area where residential land use is expanding and the Plan will likely be a catalyst for higher-density residential projects. Because the Plan requires or encourages ground floor retail uses in some portions of the Rincon Hill area, the number of sites currently used for surface parking and the number of underutilized buildings would be reduced and the amount of housing and commercial activity in the area will increase. The Plan will result in permitted densities that will be compatible with existing residential densities in the area and will complement densities to the north and west of the Rincon Hill area. The Plan will encourage the continued development of the Rincon Hill area as primarily a residential neighborhood, which is consistent with the trend since the adoption of the 1985 Rincon Hill Area Plan. According to the Rincon Hill Plan EIR, though the Plan will result in a change to the area's character, the change will be consistent with City goals.

New residential uses in the Rincon Hill area will increase the demand for open space and recreation uses, which are deficient in the area. In addition to planning for a future park, development under the Rincon Hill Plan includes "living streets," which consists of improvements such as sidewalk widening with pocket parks, tree plantings, and street furniture. The "living streets" will result in 30,000 square feet of new active open space and will change the area's character from one primarily defined by a historic industrial development pattern to an active, predominantly high-density mixed-use neighborhood. According to the EIR, the Rincon Hill Plan will not disrupt nor divide an established community, nor will it have a significant impact on the existing character of the vicinity. In conclusion, all impacts related to land use are considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, the Eastern Neighborhoods Rezoning and Area Plans is a regulatory program, not a physical development project. It will not create any new physical barriers in the Eastern Neighborhoods. Therefore, development will not physically disrupt or divide an established community in any direct sense. However, established communities will be indirectly affected by altering the land use characteristics of the Eastern Neighborhoods. According to the EIR, implementation of the Eastern Neighborhoods Rezoning and Area Plans will result in more cohesive neighborhood subareas that will exhibit greater consistency in land use and building types, and will include more clearly defined residential neighborhoods and commercial corridors compared to the existing zoning, which is spread across a broad geographic area and allows more variability in use. Furthermore, implementation of the Eastern Neighborhoods Rezoning and Area Plans will discourage the type of incompatible residential development that has been the pattern throughout much of the Eastern Neighborhoods, thereby reducing potential land use conflicts.

The character of historically industrial districts is likely to shift along with the changes in land use. Where residential and mixed-use buildings replace existing PDR uses, the activities that typically occur in the area, as well as the building styles, heights, and frontages may change. While the expected land use changes may alter the existing character of many discrete areas in the Eastern Neighborhoods, the changes will not be detrimental or adverse, and in many instances, the Plan's rezoning options may serve to enhance the pedestrian realm and the overall character of the neighborhood by attracting services and directing public improvements to address existing deficiencies as well as new neighborhood needs.

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, the Plan will also indirectly result in changes in the potential to physically accommodate PDR uses, whether in existing or new buildings, in these neighborhoods because of the potential for land use conflicts due to restrictions on noise, air pollutant emissions, and truck traffic and parking that may be expected to result from development of new housing in these industrial areas. Because the outcome of the rezoning process for Western SoMa is not known, the Eastern Neighborhoods Rezoning and Area Plans EIR concluded that one of the rezoning options will have a significant and unavoidable impact related to cumulative supply of land for PDR uses. In conclusion, all impacts related to land use are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR with the exception of one of the rezoning option's impact related to the cumulative supply of land for PDR uses.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, implementation of the Market and Octavia Neighborhood Plan will change the existing land use character of the area into a transit oriented, high-density mixed-use neighborhood. The Plan is intended to alter existing land use character by maximizing housing, encouraging more dense residential development and more active, ground-level retail, eliminating uses that are incompatible with residential uses, and creating new public street and open space improvements. The Plan will also affect land use by increasing opportunities for alternative modes of

travel, reducing the amount of auto traffic and demand for parking. As such, according to the Market and Octavia Neighborhood Plan EIR, changes in land use character will be expected to occur. Overall, the Plan proposes to decrease height limits in certain locations to be more compatible with existing land uses. In addition, the Plan's emphasis on infill development, particularly the Central Freeway parcels, will reunite the Market and Octavia Neighborhood by developing vacant parcels into uses consistent with surrounding land uses, and providing continuous street frontages along major streets. The Plan will encourage and increase active, ground-floor retail uses to serve the increased residential population, and encourage pedestrian movement. According to the Market and Octavia Neighborhood Plan EIR, although the Plan will result in changes to land use and zoning, these changes would not result in a significant impact related to land use character.

Changes in land use will be consistent with goals of the General Plan and the Better Neighborhoods Program to increase housing in the city, particularly affordable housing, reduce dependence on automobiles, and improve value of streets as civic places. The Plan will not physically divide or disrupt an established community. Instead, the Plan will create opportunities for infill development that will reunite those segments of the area that have been divided by the Central Freeway structure. In conclusion, all impacts related to land use are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as "other areas". This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to land use due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the "other areas". Potential land use impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to land use and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to divide an established community, conflict with an applicable land use plan, policy, or regulation, or substantially impact the existing character of the vicinity would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the

EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to land use. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to land use would be less than significant.

Cumulative Impacts

The geographic context for cumulative land use impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to land use. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to land use. The contribution of potential impacts from the proposed project to the cumulative land use impacts would not be cumulatively considerable. Cumulative land use impacts are therefore considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

C. AESTHETICS

INTRODUCTION

This section addresses potential project impacts related to scenic vistas, scenic resources within a scenic highway, visual character or quality of surrounding area, and potential new sources of light and glare.

ENVIRONMENTAL SETTING

Viewsheds refer 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, or by development that has become a prominent visual component of the area.

Known for its abundance of natural beauty and stunning 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 to be the most important natural resource in San Francisco, offering significant opportunities for scenic views.¹ In addition, the City's natural hills and ridges help to define neighborhoods and provide contrast to the spacious setting provided by the bay and ocean waters. Twin Peaks, the massive hills located centrally in the City serve to visually divide the City into quadrants.² Various other dramatic inclines include Telegraph Hill, Sunset Heights and Potrero Hill. In between, the various valleys and plains provide for their own unique neighborhood settings and contrasts. The City contains many open spaces and landscaped areas whose rich green colors help to further define and identify hills, districts, and places for recreation. These areas include the popular Presidio, Lake Merced and Golden Gate parks as well as smaller but prominent locations such as Alta Plaza and Lombard Street Hill. These varied resources result in scenic viewpoints available at numerous locations from within the City and from approaches to the City.

In and around the project site are many prominent viewsheds. For example, 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. In particular, Telegraph Hill, Russian Hill, Pacific Heights, Buena Vista, and Dolores Heights are areas with outstanding visual features. Telegraph Hill contains a highly visible, tree-rich, hilltop park, from which Coit Tower rises. Approaching the City from Interstate 80 on the Bay Bridge offers a stunning view of Coit Tower and Telegraph Hill as juxtaposed by the San Francisco Bay to the northeast and the downtown skyline to the south. Telegraph Hill is located within the project area. Directly west is the Russian Hill neighborhood,

¹ *City and County of San Francisco, Recreation and Open Space Element of the General Plan, Adopted May 25, 2005, website: http://www.sfgov.org/site/planning_index.asp?id=41414, accessed October 20, 2008.*

² *See City and County of San Francisco, Urban Design Element of the General Plan, Adopted May 25, 2005 website: http://www.sfgov.org/site/planning_index.asp?id=41416, accessed October 21, 2008.*

which is also located in the project site. This affluent neighborhood is characterized by a harmonious balance of low, small-scale older buildings and tall, slender towers. Increasing heights of buildings towards the top emphasizes the hill form and sets Russian Hill apart from other high areas to the south and west. Varied and well-tended landscaping in parks, yards and streets provides a rich background for the buildings and a cascading effect on the slopes. West of Russian Hill and the project site is the also affluent Pacific Heights neighborhood, which is shown by a sequence of building heights rising steadily up the north slope and cresting along Broadway, Pacific, and Jackson streets before again sloping steeply southward. Outstanding views of the Bay, as well as richly-detailed residences, particularly from the Victorian period, are available from various street corners.

The project site is largely developed and contains various unique neighborhoods from the culturally rich Chinatown, featuring the Chinatown Gateway, to the South of Market neighborhood characterized by infill development and live-work lofts, which are interspersed with old warehouses, auto repair shops, and nightclubs. Visual resources within the project area are varied, but include City Hall, AT&T Park, and Yerba Buena Gardens.

Scenic highways are highways that traverse land with unique or outstanding scenic quality or provide access to regionally significant scenic and recreational areas. Portions of State Route 1, Interstate 80, and Interstate 280 within the City are eligible for scenic highway designation under the State's Scenic Highway Program.³ Sources of light and glare in the City and in the project area generally include interior and exterior lights of buildings and parking lots, lighting visible through windows, and street and vehicle lights. Additional light sources include the AT&T Park (baseball stadium) and the "necklace of lights" on the Bay Bridge.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Have a substantial adverse effect on a scenic vista;
- 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;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or
- 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.

³ California Department of Transportation, *California Scenic Highway Program, selection for the County of San Francisco*, website: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed July 12, 2009.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Aesthetics impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, new sources of light and glare will occur throughout the Bayview Hunters Point plan area. Specifically, these impacts will result from new mixed-use development on vacant parcels and unused buildings with infill development and may ultimately affect future residential uses planned along 3rd Street. New light sources will be typical of urban development and would not be substantially visible from other neighborhoods; impacts are considered less than significant. New sources of light and glare in the Candlestick Activity Node and from the Stadium Development are considered significant and unavoidable.

Impacts related to scenic views and visual character were evaluated for each of the activity nodes in the Bayview Hunters Point plan area. Building heights in the several of the activity nodes will be increased beyond existing conditions. Overall, however, new development will be generally comparable with the overall height, bulk, and volume of existing buildings in the area and impacts are considered less than significant.

Several scenic views are provided along major corridors in the area, including along 3rd Street. For the most part, these views will not be affected by the Bayview Hunters Point Redevelopment Plan. However, due to height increases some northern, long-range views of the western span of the Bay Bridge may be lost. In addition, some proposed land use changes may affect medium-range views of the Bayview Opera House. Overall, however, changes in land use in the project area will not affect the visual character adjacent to the Bayview Opera House. Infill development may also affect some long-range western views of the Silver Terrace and Bernal Heights. Under the Bayview Hunters Point Redevelopment Plan EIR, impacts related to scenic views in the Candlestick Point Activity Node are considered to be significant and unavoidable and impacts to scenic views in all other activity nodes are considered to be less than significant.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, the Rincon Hill Plan may result in the removal of visual elements with neutral or low aesthetic value, including surface parking lots, and in some cases, deteriorated buildings, thereby potentially enhancing the visual quality of the project area. Alternatively, the Rincon Hill Plan will also lead to the removal of visually important buildings such as the Bank of American Clock Tower at First and Harrison Streets. Height limits may also change and although future

development will generally be larger than existing buildings in the area, increases in building size would not, in and of themselves, result in an adverse change to visual quality, as many nearby developments already exceed current height restrictions. The greatest visual changes will occur along Folsom Street. The Rincon Hill Plan calls for the transformation of Folsom Street into a boulevard with a mix of uses, sidewalk widening, and landscaping. None of the changes are considered to have an adverse effect on visual quality.

Existing views, both within and across the Rincon Hill plan area will be altered with development under the Rincon Hill Plan. Land uses will intensify, but there will be more space between towers with smaller tower floor plates and less bulky tower profiles in the Rincon Hill plan area than on the blocks north of Market Street. Although height limits will be raised to heights similar to areas north of Market Street, development will not appear as dense given the tower separation and maximum numbers of towers per block. Overall, according to the Rincon Hill Plan EIR, the Plan will not result in adverse effects to views.

The increased density and height of development will result in substantial changes in the built form of the Rincon Hill plan area in long-range, east-west views, such as from the Randall Museum, Dolores Park or Twin Peaks to the west, or from the Bay Bridge or Treasure Island from the east. From the south (e.g., Potrero Hill or Bernal Hill), the new development will be less distinctive and will somewhat merge into the background of existing high-rises in the downtown area. From the north, changes in urban form will be apparent primarily in views from upper stories of downtown high-rises, and from elevated viewpoints such as Telegraph Hill and Russian Hill. Although some existing views will be diminished, implementation of the Rincon Hill Plan will provide an additional focal point in long-range views of and through the Rincon Hill plan area that may enhance the urban form of the City.

New construction in the Rincon Hill plan area will generate additional night lighting, but not in amounts unusual for a developed urban area. Design of exterior lighting will ensure that the off-site glare or lighting spillover will be minimized. All impacts related to visual quality are considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, it is not anticipated that the Eastern Neighborhoods Rezoning and Area Plans will substantially damage scenic resources that contribute to a scenic public setting, as the Eastern Neighborhoods Rezoning and Area Plans will not directly result in any physical changes. Any changes in urban form and visual quality will be the secondary result of individual projects that would occur subsequent to the adoption of the Eastern Neighborhoods Rezoning and Area Plans. The Eastern Neighborhoods Rezoning and Area Plans will increase maximum permitted building heights along selected streets and subareas within the Eastern Neighborhoods plan area. Many of the proposed height limit increases will be minor, between five and 15 feet, which will have correspondingly minor effects on urban form and neighborhood character. This will not noticeably impact the scale of development in the context of the generally existing 40 to 85-foot height districts. On some blocks in the Eastern Neighborhoods plan area, height limits will be lowered to

reflect the prevailing heights of existing buildings, while in other areas there will be no change at all. Overall, the Eastern Neighborhoods Rezoning and Area Plans are expected to result in a more cohesive urban form and more consistent building styles within the subareas of the Eastern Neighborhoods plan area.

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, the Eastern Neighborhoods Rezoning and Area Plans may affect the view angle to the sky due to changes in height of buildings. However, most views from streets and publicly accessible parks within the Eastern Neighborhoods plan area are not panoramic but are urban views down developed corridors already flanked by buildings. In fact, the Eastern Neighborhoods Rezoning and Area Plans will help define the street edge and better frame these urban views.

The Eastern Neighborhoods Rezoning and Area Plans will not result in obtrusive light or glare that will adversely affect views or substantially affect other properties. Development that will occur in the Eastern Neighborhoods plan area will not generate new sources of light unusual for a developed urban area. In some areas, where residential development will replace open parking lots or yards, softer lighting and less glare than existing conditions will result. Development projects are required to comply with standards in the San Francisco Planning Code related to glare (Section 202(c)). All impacts related to visual quality are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, the Market and Octavia Neighborhood Plan may result in the removal of visual elements with neutral or low aesthetic value, including surface parking lots, and in some cases, underutilized and deteriorated buildings, as well as landscape and other streetscape improvements to public streets and open spaces. These elements may enhance visual quality of the Market and Octavia Neighborhood plan area. The greatest amount of aesthetic change is expected to occur in the SoMa West Neighborhood and on the Central Freeway parcels along the Octavia Boulevard corridor. In some areas, the existing scale of the Market and Octavia Neighborhood plan area may change as the Plan's proposed height limits may encourage the concentration of structures taller than what currently exists or is allowed by the existing height limits. The Market and Octavia Neighborhood Plan will generally transition in height and density toward Market Street/Van Ness Avenue intersection. At this intersection, height limits will allow slender towers up to 400 feet. Around Market Street and Van Ness Avenue, the Market and Octavia Neighborhood plan area's height district can accommodate towers of 250 feet at the intersection of Mission Street/Otis Street/South Van Ness Avenue. Toward SoMa West's southern boundaries, building heights will step down to 85 feet. Development throughout the Market and Octavia Neighborhood plan areas, may result in noticeable changes in visual quality associated with construction of new buildings, continued adaptive reuse of historically significant buildings and overall intensification of uses. However, the Market and Octavia Neighborhood Plan EIR concludes that the Market and Octavia Neighborhood Plan will not result in a negative aesthetic effect on the visual character of the plan area.

Implementation of the Market and Octavia Neighborhood Plan will alter existing views from public viewpoints since new residential, mixed use commercial buildings, streetscaping, landscaping, and planned transportation infrastructure improvements may be developed within the Market and Octavia Neighborhood plan area. However, the Market and Octavia Neighborhood Plan EIR concludes that the Market and Octavia Neighborhood Plan will not have a demonstrable negative effect on scenic views or vistas. The greatest changes to views will occur in the oblique (diagonal) views to the south and southeast across Market Street, toward the SoMa West neighborhood where the Market and Octavia Neighborhood Plan encourages future high-rise buildings where no currently exist.

New construction in the Market and Octavia Neighborhood plan area will generate additional night lighting, but not in amounts unusual for a developed urban area. Design of exterior lighting will ensure that the off-site glare or lighting spillover would be minimized. All impacts related to visual quality are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to aesthetics due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential aesthetics impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to aesthetics and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to cause substantial adverse effects on the scenic vista, substantially damage scenic resources, substantially degrade the existing character or quality of the site, or create a substantial source of light or glare that adversely affect views would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to aesthetics.

Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to aesthetics would be less than significant.

Cumulative Impacts

The geographic context for cumulative aesthetic and scenic resource impacts is the City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the region could contribute to impacts related to aesthetics and scenic resources. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to aesthetics and scenic resources. The contribution of potential impacts from the proposed project to the cumulative aesthetic and scenic resource impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

D. POPULATION AND HOUSING

INTRODUCTION

This section addresses potential project impacts related to population growth, housing displacement, and displacement of people.

ENVIRONMENTAL SETTING

Population

San Francisco has seen an increase in population growth in recent years.¹ Table V.D-1 demonstrates population data for the City between 1990 and 2009. The percent change in population in the City between 1990 and 2000 was 7.3 percent and the percent change between 2000 and 2009 was 8.9 percent.

Table V.D-1
Population Growth in San Francisco

Year	Population	Percent Change
1990	723,959	--
2000	776,733	7.3 %
2009	845,559 ¹	8.9 %

¹ California Department of Finance, *E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2008 and 2009*, website: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/2008-09/documents/E-1%202009%20Internet%20Version.xls>, accessed July 2, 2009.

Source: City and County of San Francisco, Planning Department, *Draft Housing Element, Part I: Data and Needs Analysis*, April 2009, at page 4.

San Francisco had a population of 845,559 as of January 2009.² San Francisco is the 13th most populous city in the country and ranks third for population density.³ According to the Association of Bay Area Governments (ABAG), the population in the City is expected to grow to an estimated 969,000 persons by the year 2035. Table V.D-2 displays the projected population data for the City through 2035.

¹ City and County of San Francisco, Planning Department, *Draft Housing Element, Part I: Data and Needs Analysis*, April 2009, at page 4.

² California Department of Finance, *E-1 population Estimates for Cities, Counties and the State with Annual Percent Change — January 1, 2008 and 2009*, website: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/2008-09/documents/E-1%202009%20Internet%20Version.xls>, accessed July 2, 2009.

³ U.S. Census Bureau, *County and City Data Book 2000*, website: <http://www.census.gov/statab/ccdb/cityrank.htm>, accessed October 17, 2008.

**Table V.D-2
San Francisco Population Projections**

Year	Projected Population	Growth Rate
2010	810,000	-
2015	837,500	3.4 %
2020	867,100	3.5 %
2025	900,500	3.9 %
2030	934,800	3.8 %
2035	969,000	3.7 %

Source: ABAG Projections, 2009.

As shown in Figure IV-2 in Section IV (Project Description), the project area wholly or partially overlaps 72 census tracts within the City. Specifically, the project area includes Census Tracts 101, 102, 103, 104, 105, 106, 107, 109, 110, 111, 113, 114, 115, 117, 118, 119, 120, 121, 122, 123, 124, 125, 129, 130, 131, 151, 155, 158, 159, 160, 161, 162, 163, 164, 168, 169, 176.01, 176.02, 177, 178, 179.01, 180, 201, 202, 203, 207, 208, 209, 210, 226, 227.01, 227.02, 227.03, 228.01, 228.02, 228.03, 230.01, 230.02, 230.03, 231.01, 231.02, 231.03, 232, 233, 234, 253, 264.01, 264.02, 605.02, 606, 607, and 609. Census tracts falling wholly or partially within the project area represented a population of 287,043 according to 2000 Census data.⁴

Housing

The City's housing stock totals approximately 363,660 units.⁵ Approximately 18,960 new housing units were added to the City's housing stock in the nine years following the 2000 Census, for an annual average of 2,010 units.⁶ In comparison, a net total of 9,640 housing units were added between 1990 and 1999 for an annual rate of approximately 964 units per year.

The overall housing vacancy rate in San Francisco is indicative of an enduring tight market. Table V.D-3 depicts the fluctuating vacancy rate in San Francisco. The unusually high total vacancy rate of 10 percent in 2007 suggests an increase in second homes, time-shares, and corporate homes used for employee housing.

⁴ U.S. Census Bureau, *United States Census 2000, custom table derived at website: http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=DEC&_submenuId=&_lang=en&_ts=*, accessed July 12, 2009.

⁵ *City and County of San Francisco, Planning Department, Draft Housing Element, Part I: Data and Needs Analysis, April 2009, at page 21.*

⁶ *Id. at page 26.*

**Table V.D-3
Vacancy Rates by Vacancy Status**

Vacancy Status	1970	1980	1990	2000	2007
Vacant	4.89%	5.58%	6.97%	4.86%	10.0%
For Rent Vacant	3.17%	2.68%	3.71%	2.50%	6.0%
For Sale Vacant			0.56%	0.80%	1.6%

Source: City and County of San Francisco, Planning Department, Draft Housing Element, Part I: Data and Needs Analysis, April 2009, at page 37.

In the project area, there were approximately 136,080 households estimated in the 2000 census data and 144,732 housing units, of which 8,652 units were vacant.⁷ The 2009 Housing Element of the San Francisco General Plan indicates that since 2000, 43 percent of new housing in the City was constructed in the South of Market district, which is located within the project area.⁸

Housing affordability is a major issue for the Bay Area and especially for San Francisco. According to ABAG, in 2007 only approximately 15 percent of Bay Area households could afford a median-priced home in the Bay Area at large, while in San Francisco, only 10 percent of households could afford a median-priced home.⁹

The 2004 Housing Element presents San Francisco's share of the regional housing need for January 1999 through June 2006, which was calculated as 20,374 units, or 2,717 units per year.¹⁰ The 2009 Housing Element presents the San Francisco Bay Area Housing Needs Plan 2007-2014 produced by ABAG, which summarizes state-mandated data regarding housing needs by income level in the Bay Area. Table V.D-4 shows the amount of housing need allocated to the City for 2007 to 2014.

⁷ U.S. Census Bureau, *United States Census 2000*, custom table derived at website: http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=DEC&_submenuId=&_lang=en&_ts=, accessed October 17, 2008.

⁸ City and County of San Francisco, *Planning Department, Draft Housing Element, Part I: Data and Needs Analysis, April 2009, at page 26.*

⁹ ABAG, *San Francisco Bay Area Housing Needs Plan 2007-2014, Adopted June 2008, at page 46, website: http://www.abag.ca.gov/planning/pdfs/SFHousingNeedsPlan.pdf, accessed October 17, 2008.*

¹⁰ City and County of San Francisco, *Planning Department, Housing Element, Part I: Data and Needs Analysis, Adopted May 13, 2004, at page 65.*

**Table V.D-4
Housing Allocation in San Francisco for 2007 to 2014**

Extremely Low Income	Very Low Income	Low Income	Moderate Income	Above Moderate Income	Total
3,294	3,295	5,535	6,754	12,315	31,193

Source: City and County of San Francisco, Planning Department, Draft Housing Element, Part I: Data and Needs Analysis, April 2009, at page 41.

The pipeline represents projects under construction and projects that have been approved by the Building Department within the past three years or filed within the past five years. Table V.D-5 shows the new housing construction pipeline as of July 2009. As shown, 862 projects that could result in approximately 54,790 units are in the pipeline.

**Table V.D-5
New Housing Construction Pipeline (2nd Quarter of 2009)**

Type of Activity	No. of Projects	No. of Units
Under Construction	156	6,510
Building Permit Approved/Issued	168	2,850
Building Permit Application Filed	316	4,480
Planning Department Approved	92	6,200
Planning Department Filed	130	34,750
Total Pipeline	862	54,790¹

Source: City and County of San Francisco, Planning Department, Pipeline Report, 2009 Quarter 2, July 2009, at page 3.

¹ Total No. of Housing Units as presented in the Pipeline Report.

Employment

The median household income in San Francisco in 2007 was \$65,519, and the median family household income was \$81,136.¹¹ Approximately 18 percent of families were under the poverty level in 2007.¹² Of the City's residents over age 25, 31.1 percent holds a bachelor's degree and 18.7 percent holds a graduate or professional degree.¹³ With respect to occupational sectors, 49.8 percent employment is in

¹¹ City and County of San Francisco, Planning Department, Draft Housing Element, Part I: Data and Needs Analysis, April 2009, at page 15.

¹² Id. at page 50.

¹³ Bay Area Census, San Francisco City and County, website: <http://www.bayareacensus.ca.gov/counties/SanFranciscoCounty.htm>, accessed June 30, 2009.

management and professional work, and 39.2 percent of employment is in service, sales, and office work.¹⁴

Table V.D-6 presents data relating to employment trends. The crash of dot.com ventures and the subsequent recovery show a net job loss in the years between 2000 and 2010 to be just a little more than 41,000.

Table V.D-6
San Francisco Employment Data 1990 to 2000

Year	Number of Jobs	Growth (Loss)	% Change
1990	579,180	26,980	4.9%
2000	634,430	55,250	9.5%

Source: City and County of San Francisco, Planning Department, Draft Housing Element, Part I: Data and Needs Analysis, April 2009, at page 12.

Table V.D-7 shows employment projections for the City from 2010 to 2035. ABAG Projections 2009 data estimates that there will be 647,190 jobs in the City in the year 2020. This represents a growth rate of 6.7 percent from the number of estimated jobs in the year 2015. The job growth rate is estimated to increase to 7.9 percent between 2020 and 2035 during which projected employment is estimated to be at 806,830 jobs.

Table V.D-7
San Francisco Employment Projections

Year	Projected Population	Growth Rate
2010	568,730	-
2015	606,540	6.6 %
2020	647,190	6.7 %
2025	694,830	7.4 %
2030	748,100	7.7 %
2035	806,830	7.9 %

Source: ABAG Projections, 2009.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

¹⁴ *Id.*

- 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);
- Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing; or
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Population and housing impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, the Bayview Hunters Point Redevelopment Plan will revise land use controls to allow more intensive development of medical, retail, and commercial uses, as well as additional housing. Through these changes in land use controls and designations, the Bayview Hunters Point Redevelopment Plan may reduce the potential amount of employment associated with PDR activities and increase the potential amount of employment in medical, retail, and commercial activities. Development of approximately 2.4 million square feet as envisioned by the Bayview Hunters Point Redevelopment Plan will accommodate an estimated 5,523 new jobs, which is intended, in part, to provide employment opportunities for residents of the area. Employment in the plan area as a result of the Bayview Hunters Point Redevelopment Plan will increase by approximately 60 percent.

The Bayview Hunters Point Redevelopment Plan is expected to result in approximately 6,146 new housing units. This represents an increase in overall growth of housing units by 358 percent when compared to a no-project scenario. The project will accommodate approximately 14 to 19 percent of the overall projected housing growth needed between 2000 and 2025. The Bayview Hunters Point Redevelopment Plan EIR (at the time of preparation) estimates that the City’s population will increase by 20,896 overall as a result of the Plan. This represents approximately 20 percent of the overall population growth projected for the City during the associated planning horizon. Impacts related to population, housing, and employment are considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, development pursuant to the Rincon Hill Plan will increase the population of the Rincon Hill plan area five or six times the current population (at the time the Rincon Hill Plan EIR was prepared). The projected growth in Rincon Hill under any of the Rincon Hill Plan options will be within growth forecasted by ABAG. The Rincon Hill Plan will encourage the development of new housing in Rincon Hill to meet a portion of existing housing demand and to help achieve the need outlined in the future housing forecast by ABAG. According to the Rincon Hill Plan EIR, the Rincon Hill Plan will not result in displacement of people or housing, nor will it create unmet housing demand; instead, it will provide some relief for housing demand created by other factors by facilitating an increase in the housing supply. Impacts related to population, housing, and employment are considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, under all of the proposed rezoning options, an additional 36,500 households are forecast for San Francisco between 2000 and 2025. Total employment would range from a high of 766,000 jobs in 2025 under Option A to a low of 759,000 jobs in 2025 under Option C. The increase in population will occur as a secondary effect of the proposed rezoning and adoption of the proposed area plans and will not, in itself, result in adverse physical effects. Implementation of the area plans will result in more housing options and a broader range of housing process and rents compared to existing conditions. The area plans will potentially result in a better match between housing supply and demand in San Francisco while potentially providing benefits such as a reduction in traffic and vehicle emissions due to the proximity of jobs and housing. None of the proposed options will directly result in the displacement of residents, businesses, or employment because each of the proposed rezoning options will result in less displacement as a result of housing demand than otherwise expected under the No-Project scenario because the addition of more new housing in the Eastern Neighborhoods will provide some relief for housing market pressures without directly affecting existing residents.

The Eastern Neighborhoods Rezoning and Area Plans will not create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply. The Eastern Neighborhoods Rezoning and Area Plans will not have a significant impact related to population and housing. Impacts related to population, housing, and employment are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, the Market and Octavia Neighborhood Plan is expected to result in an increase in residential population along with housing growth. The population within the Market and Octavia Neighborhood plan area will increase from about 28,905 to 36,525 in 2025, a net change of about 7,620 residents, or a 26 percent increase. At the time the Market

and Octavia Neighborhood Plan EIR was adopted, it was estimated that the Plan will account for 11.7 percent of the citywide population growth in 2025. The Market and Octavia Neighborhood Plan EIR concluded that the increase in residential population would not be considered an adverse physical environmental impact.

The Market and Octavia Neighborhood Plan EIR states that the Plan will create potential for construction of approximately 4,440 new housing units by 2025, increasing the housing supply in the Market and Octavia plan area by 29 percent (at the time the Market and Octavia Neighborhood Plan EIR was prepared). The Market and Octavia Neighborhood Plan EIR concludes that while generating household growth in the Market and Octavia plan area, the Plan will not cause an adverse physical impact as it will focus new housing development in San Francisco in an established urban area that has a high level of transportation and other public services that can accommodate the proposed residential increase. Housing growth will not result in a net increase in population growth. Finally, increased employment attributable to the Plan will not create a demand for additional housing, and will not result in a significant physical environmental impact. Impacts related to population and housing are not considered to be significant under the Market and Octavia Neighborhood EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to population and housing due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential population and housing impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to population and housing and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to induce substantial population growth, displace existing housing, create a demand for additional housing, or necessitate the construction of replacement housing would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project

implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to population and housing. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to population and housing would be less than significant.

Cumulative Impacts

The geographic context for cumulative population and housing impacts is the San Francisco Bay Area. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the region could contribute to impacts related to population and housing. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to population and housing. The contribution of potential impacts from the proposed project to the cumulative population and housing impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

E. CULTURAL RESOURCES

INTRODUCTION

This section addresses potential project impacts related to historical resources, archaeological resources, paleontological and geologic resources, and human remains.

ENVIRONMENTAL SETTING

Cultural resources in the City reflect the area's history of settlement by Native Americans, Europeans, Mexicans and others, as well as periods of economic and social change such as those associated with the Gold Rush and development of shipping transportation. The City's rich history has produced a large stock of historically significant homes, public buildings, and landmarks including important ethnic historical sites. The physical environment of the City has been greatly altered by human modification over the past 250 years.

Archaeological Resources

San Francisco has been documented by extensive archaeological literature and field investigation.¹ The literature tends towards descriptive rather than analytic; most field projects have been based on salvage measures for development proposals rather than research-based.² Historical objects and periods of focus include prehistoric sites, Gold Rush period, Gold Rush storehouses, the Spanish/Mexican Presidio, the former City Hall complex, Chinese immigration, and former cemetery sites.³

Archaeological records show that San Francisco was inhabited by prehistoric populations at least 6,000 years ago.⁴ The earliest people were small, migratory bands of hunter-gatherers as shown by the presence of large projectile points and milling stones.⁵ It is believed that these bands spoke the Hokan language.⁶ By 500 B.C., the Hokan bands were joined or displaced by bayshore/marsh-adapted people from the Central Valley, who spoke Utian and lived in sedentary settlements.⁷ The Utian speakers lived on acorn, shellfish, and small game.⁸ The Yelamu, a Costanoan triblet, which occupied the northern end of the San

¹ *Eastern Neighborhoods Rezoning and Area Plans, Draft EIR, Adopted June 30, 2007, at page 427.*

² *Id.*

³ *Id.*

⁴ *Market and Octavia Neighborhood Plan, Final EIR, Adopted September 2007, at page 4-149.*

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

Francisco peninsula in the late 18th century, consisted of three villages.⁹ These village groups may have had specialized sites for activities such as shellfish processing and ritual burials.¹⁰

The Hunters Point Shoreline area was first settled by the Hunter Brothers in the 1850s.¹¹ Businesses related to the shipping industry were established here starting in the 1860s.¹² The area became a docking area for U.S. Navy ships in the early 1900s.¹³ Because of its location adjacent to the San Francisco Bay, subsurface cultural resources dating from the last 200 years could be present in the area.¹⁴ Human remains are not suspected to be present.¹⁵

History of the Area

As noted in the Draft Preservation Element of the San Francisco General Plan, the cultural landscape that emerged during the nineteenth and twentieth centuries resulted in the alteration of the original physical landscape, as coves and marshes along the Bay were filled in, and hills and dunes were leveled.¹⁶ Located at an important natural harbor, maritime commerce played a vital role in the development of San Francisco. In turn, the economic and commercial importance of the port was balanced by the City's relative geographic isolation by land. Until the 1930s and construction of the Golden Gate and Bay bridges, the only direct approach to San Francisco from points north and east was by boat or ferry.

European settlement of San Francisco first occurred in 1776. The government of Spain first established a military outpost, or *Presidio*, at the northern end of the peninsula near the mouth of the Golden Gate. Indigenous peoples living in the area when the Spanish arrived were subjected to brutal treatment, including displacement from their traditional homelands. At the same time, Catholic missionaries established Mission Dolores near what is now 16th and Dolores streets.

Following the close of the Mexican American War in 1848, the population in the City had reached about 400.¹⁷ However, with the discovery of gold on the American River in the Sierra Nevada foothills, the City

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Hunters View Redevelopment Project, Draft EIR, Adopted March 1, 2008, at page 144 (referencing an archaeological resource investigation conducted as part of the Bayview Hunters Point Redevelopment Projects and Rezoning Final EIR).*

¹² *Id.* at page 145.

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* at page 146.

¹⁶ *City and County of San Francisco, Draft Preservation Element of the General Plan, November 2007, at page 2, website: http://www.sfgov.org/site/uploadedfiles/planning/Draft_Preservation_Element_2007.pdf, accessed July 12, 2009.*

¹⁷ *Id.* at page 3.

began growing exponentially. The focus of the growth was in the area now known as the Northeastern Waterfront.¹⁸

As described in the Rincon Hill Area Plan, the influx of gold seekers of 1849 brought forth development of much of Rincon Hill as well and the surrounding waterfront.¹⁹ During the mid 1800s Rincon Hill roughly included the area between present day Third, Spear, Folsom and Bryant Streets. The shoreline before 1850 is estimated to have been 300 feet to the east of Rincon Hill. Due to its sunny climate, views and topography, during the 1850s and 1860s Rincon Hill was particularly attractive as a residential area for the merchant and professional class. The maritime industry was also developing along the area's waterfront.

The port, previously located where the Financial District is located today, was the natural location of trade in goods and services, and so commercial structures were concentrated in that area.²⁰ With the invention of the cable car in 1873 and subsequent electrification of the lines, further areas became open to residential development.²¹

Through World War II, the waterfront retained its focus as a thriving port and center of the City's economic vitality.²² The Ferry Building, located at the foot of Market Street, became a landmark structure symbolic of the City's ties with the Bay Area and the world. The completion of the Bay Bridge in the 1930s and advent of container shipping diminished the role of the Ferry Building and led to the development of the central and southern waterfront near India Basin in the 1970s.

Architectural History

As described in the Draft Preservation Element of the San Francisco General Plan, a massive earthquake with a magnitude of approximately 7.9 struck San Francisco in 1906.²³ Streets and streetcar lines buckled, water pipes and gas pipes broke, houses were knocked off their foundations, and masonry buildings collapsed. The damage to gas lines and brick chimneys produced fires, and the extreme heat of the fires along with damaged water mains made firefighting extraordinarily difficult. The City's residential buildings, most of which were made of wood, experienced severe fire damage. The fire continued for three days, and some 28,000 buildings that housed an estimated 250,000 people were destroyed.

¹⁸ *City and County of San Francisco, Northeast Waterfront Area Plan, Adopted July 31, 2003.*

¹⁹ *City and County of San Francisco, Rincon Hill Area Plan, Adopted May 25, 2005.*

²⁰ *City and County of San Francisco, Draft Preservation Element of the General Plan, November 2007, at page 3, website: http://www.sfgov.org/site/uploadedfiles/planning/Draft_Preservation_Element_2007.pdf, accessed July 12, 2009.*

²¹ *Id.*

²² *City and County of San Francisco, Northeast Waterfront Area Plan, Adopted July 31, 2003.*

²³ *City and County of San Francisco, Draft Preservation Element of the General Plan, November 2007, at pages 3-4, website: http://www.sfgov.org/site/uploadedfiles/planning/Draft_Preservation_Element_2007.pdf, accessed July 12, 2009.*

In the ensuing reconstruction, new architectural styles emerged, including the use of brick and other fireproof construction materials. Victorian asymmetry and ornament lost favor to the more orderly and restrained Classical revival styles. This stylistic shift was perhaps best embodied by the completion in 1915 of the Beaux Arts style City Hall.

By the time of the Great Depression in the 1930s, much of the City had taken the physical shape that prevails today. Despite the economic downturn, the Depression years provided the City with many well-known public works projects such as the Bay Bridge, the Transbay Terminal, Coit Tower, Rincon Annex, Aquatic Park, the Cow Palace, and numerous firehouses, libraries, police stations, and schools.

The City's environment today displays a variety of architectural periods and styles that reflect the City's historical development. Greek Revival architecture flourished in the 1850s and 1860s, Italianate in the 1870s, Stick Eastlake in the 1880s, Queen Anne in the 1890s, Victorian in the 1860s through 1890s, Edwardian in the early 1900s, and Classical or Colonial Revival in the early twentieth century.²⁴ In the 1910s and 1920s, styles with origins in California were popularized, such as Mission, Spanish Colonial, and Mediterranean Revival. Art Deco was used beginning in the late 1920s, most often on commercial rather than residential buildings, as was the related Streamline Moderne style that emerged in the postwar era. International Modernism also appeared as early as the 1930s in San Francisco in the form of dramatic hillside residential buildings by architects such as Richard Neutra. The 1950s brought the concept of "urban renewal" to San Francisco, resulting in the loss of many historic resources and a surge of new construction, often in the International style, in areas including Yerba Buena, the Western Addition, Golden Gateway, Diamond Heights, and parts of the Bayshore District. Brutalist styles and Postmodernism followed, and the Bay Area's Tech Boom of the late 1990s and early 2000s resulted in further development pressure and new construction in emerging twenty-first century styles.

During the economic boom that followed World War II, and through the 1980s, new development and highway projects resulted in the loss of many recognized historic buildings, including the Montgomery Block, and Fox Theater. Since 1967, the City has adopted 230 landmarks and eleven historic districts in San Francisco County. Within the proposed Enterprise Zone are contained the following historic districts: Alamo Square, Cottage Row, Civic Center, Dogpatch, Jackson Square, Liberty Hill, Northeast Waterfront, South End, and Telegraph Hill.²⁵ The cultural and historic resources located within the proposed Enterprise Zone are shown in Table V.E-1.

²⁴ *Id.* at pages 4-5; City and County of San Francisco, Planning Department, *San Francisco Preservation Bull. No. 18: "Residential and Commercial Architectural Periods and Styles in San Francisco"*, January 2003, website: <http://www.sfgov.org/site/uploadedfiles/planning/preservation/PresBulletin18ARCHSTYLES.pdf>, accessed July 12, 2009.

²⁵ *City and County of San Francisco, Draft Preservation Element of the General Plan, November 2007, at page 10*, website: http://www.sfgov.org/site/uploadedfiles/planning/Draft_Preservation_Element_2007.pdf, accessed July 12, 2009.

**Table V.E-1
Landmarks within the Project Area**

Landmark Number	Landmark	Location
2	Old Saint Mary's Church	660 California Street
3	Bank of California	400 California Street
4	Saint Patrick's Church	756 Mission Street
5	Saint Francis of Assisi Church	610 Vallejo Street
7	Audiffred Building	1-21 Mission Street
8	So. San Francisco Opera House	1601 Newcomb Ave.
9	Belli Building (Langerman's Building)	722 Montgomery Street
10	Genella Building (Belli Annex)	728-30 Montgomery Street
11	Hotaling Stables Building	32-42 Hotaling Place
12	Hotaling Building	451 Jackson Street
13	Hotaling Annex East	445 Jackson Street
14	Medico-Dental Building	441 Jackson Street
15	Ghirardelli Building	407 Jackson Street
16	Ghirardelli Annex—Jackson Street	407 Jackson Street
18	Palace Hotel and Garden Court Room	633 Market Street
19	Golden Era Building	732 Montgomery St.
20	Hotaling Annex West	463-73 Jackson Street
21	San Francisco City Hall	1 Dr. Carlton B. Goodlett Place
22	Solari Building (Larco's Building)	470 Jackson Street
23	Solari Building (Old French Consulate)	472 Jackson Street
24	Yeon Building	432 Jackson Street
25	Moulinie Building	458-60 Jackson Street
26	Bank of Lucas, Turner & Co.	800-804 Montgomery Street
27	Grogan-Lent-Atherton Building	701 Sansome Street
28	Old Holy Virgin Russian Orthodox Cathedral	858-64 Fulton Street
30	Ghirardelli Square	Larkin, Beach and Polk streets
32	Abner Phelps House	1111 Oak Street
33	Columbus Tower (Sentinel Building)	916-20 Kearny Street
34	Original United States Mint and Subtreasury	608 Commercial Street
35	Stadtmuller House	819 Eddy Street
37	Hallidie Building	130 Sutter Street
39	Saint Francis Lutheran Church	152 Church Street
40	First Unitarian Church	1187 Franklin Street
41	Saint Mark's Evangelical Lutheran Church	1135 O'Farrell Street
42	Dennis T. Sullivan Memorial Fire Chief's Home	870 Bush Street
44	Donaldina Cameron House	920 Sacramento Street
52	Transamerica Building (Old Fugazi Bank Building)	4 Columbus Ave.
53	Wormser-Coleman House	1834 California Street
54	Edward Coleman House	1701 Franklin Street
55	Lilienthal-Orville Pratt House	1818-24 California Street
57	Talbot-Dutton House	1782 Pacific Ave.
59	Haslett Warehouse	680 Beach Street

Table V.E-1 (Continued)
Landmarks within the Project Area

Landmark Number	Landmark	Location
60	Hunters Point Springs and Albion Brewery	881 Innes Ave.
61	Sylvester House	1556 Revere Ave.
62	Mish House	1153 Oak Street
63	Quinn House	1562 McKinnon Ave.
65	Trinity Church	1668 Bush Street
69	Haas-Lilienthal House	2007 Franklin Street
71	Goodman Building	1117 Geary Street
72	V. C. Morris Building	140 Maiden Lane
73	Lotta's Fountain	Market, Geary & Kearny streets
74	Frank M. Stone House	1348 South Van Ness
76	Mills Building & Tower	220 Montgomery Street
77	Samuels Clock	856 Market Street
78	Sunnyside Conservatory	236 Monterey Boulevard
80	Alfred E. (Nobby) Clarke Mansion	250 Douglas Street
82	Geary Theater	415 Geary Street
84	War Memorial (Opera House and Veterans Building)	301-499 Van Ness Ave.
85	San Francisco Art Institute	800 Chestnut Street
87	Jessie Street Substation	220 Jessie Street
89	Old Firehouse, Engine Company No. 2 & Truck No. 6	1152 Oak Street
90	Ferry Building	Embarcadero at Market Street
91	Gibb-Sanborn Warehouse	855 Front Street
92	Gibb-Sanborn Warehouse (Pelican Paper)	901 Front Street
94	Orpheum Theater Building	1192 Market Street
99	Schoenstein Organ	3101 20th Street
101	Oriental Warehouse	650 First Street
102	Italian Swiss Colony Building	1265 Battery Street
104	Independent Wood Company Building (CargoWest)	1105 Battery Street
107	Rincon Annex	101 Spear Street
108	State Armory and Arsenal	1800 Mission Street
109	A. Borel & Co.	440 Montgomery Street
110	Italian American Bank	460 Montgomery Street
111	Family Service Agency	1010 Gough Street
112	Rothschild House	964 Eddy Street
113	S. F. Mining Exchange	350 Bush Street
114	Beltline Railroad Roundhouse Complex	Embarcadero & Lombard streets
116	St. Paulus Lutheran Church	Eddy and Gough streets
117	Hammersmith Building	301-303 Sutter Street
118	B'nai David Synagogue	3535 19th Street
120	St. Joseph's Church	1401 Howard Street
121	Julius' Castle	302-304 Greenwich Street
122	Clay Street Center	940 Powell and 965 Clay streets
125	Havens Mansion and Carriage House	1381 South Van Ness Ave.
126	Bransten House	1735 Franklin Street
127	Old Spaghetti Factory Café	478 Green Street
128	Clunie House	301 Lyon Street

Table V.E-1 (Continued)
Landmarks within the Project Area

Landmark Number	Landmark	Location
129	Bauer & Schweitzer Malting Company	550 Chestnut Street
130	Hibernia Bank	1 Jones Street
131	Union Trust Branch of Wells Fargo Bank	744 Market Street
132	Security Pacific National Bank	1 Grant Ave.
134	Mechanics Institute	57-65 Post Street
135	Westerfield House	1198 Fulton Street
137	Notre Dame School	351 Dolores Street
138	I.M. Scott School	1060 Tennessee Street
139	St. Charles School	3250 18th Street
140	High School of Commerce	135 Van Ness Ave.
141	Home Telephone Company	333 Grant Ave.
142	PG&E Old Station J	569 Commercial Street
143	Fire Department Old Station No. 2	466 Bush Street
144	Hoffman Grill	619 Market Street
145	Buich Building	240 California Street
146	Jack's Restaurant	615 Sacramento Street
148	Kerrigan House - Ruth Cravath Stoneyard and Studio	893 Wisconsin Street
149	Edwin Klockars Blacksmith Shop	449 Folsom Street
150	Sheetmetal Workers Union Hall	224-226 Guerrero Street
151	Archbishop's Mansion	1000 Fulton Street
152	Don Lee Building	1000 Van Ness Ave.
153	Earle C. Anthony Packard Showroom	901 Van Ness Ave.
154	Flood Building	870-898 Market Street
155	Flatiron Building	540-548 Market Street
156	Phelan Building	760-784 Market Street
157	Hills Bros. Coffee Plant	2 Harrison Street
158	Federal Reserve Bank	400 Sansome Street
159	Gaylord Hotel	620 Jones Street
160	Royal Insurance Building	201 Sansome Street
161	Kohl Building	400 Montgomery Street
162	Hobart Building	582-592 Market Street
163	Sharon Building	39-63 Montgomery Street
164	McMorry-Lagen House	188-198 Haight Street
166	Trinity Presbyterian Church	3261 23rd Street
167	Metropolitan Life Insurance Building	600 Stockton Street
172	St. Boniface Church and Rectory	133 Golden Gate Ave.
173	Notre Dame des Victoires Church and Rectory	564-566 Bush Street
174	California Hall	625 Polk Street
176	Cadillac Hotel	366-394 Eddy Street
177	First Congregational Church	432 Mason Street
178	Mission Turn Hall	3543 18th Street
182	Theodore Green Apothecary	500-502 Divisadero Street
183	Crown Zellerbach Complex and Site	1 Bush St./523 Market St.
184	Mark Hopkins Hotel	850 Mason Street
185	Fairmont Hotel	590 Mason Street

Table V.E-1 (Continued)
Landmarks within the Project Area

Landmark Number	Landmark	Location
188	Engine Co. No. 8, Truck Co. No. 4	1648 Pacific Ave.
192	Southern Pacific Company Hospital Complex	1400 Fell Street
193	Baker and Hamilton Building	700-768 Seventh Street
194	Francis “Lefty” O’Doul/Third Street Bridge	Third Street at China Basin
195	Islam Temple (Alcazar Theater)	650 Geary Street
199	The Jackson Brewery Complex	1489 Folsom Street
200	Path of Gold Light Standards	1 through 2490 Market Street
202	Golden Gate Commandery of Knights Templar	2135 Sutter Street
204	Our Lady of Guadalupe Church	906 Broadway
206	The Howard/26th Street Cottages	1487 South Van Ness Ave.
212	Columbia Savings Bank Building	700 Montgomery Street
214	El Capitan Theater and Hotel	2353 Mission Street
215	Brown’s Opera House (Victoria Theater)	2961 16th Street
217	Alhambra Theater	2320-2336 Polk Street
223	Carmel Fallon Building	1800 Market Street
225	Fireboat House	Pier 22½, the Embarcadero
228	City Lights Bookstore	261-271 Columbus Ave.
229	Garcia and Maggini Warehouse	128 King Street
235	The Carnegie Chinatown Branch Library	1135 Powell Street
237	The Drexler/Colombo Building	1-21 Columbus Ave.

Source: City and County of San Francisco, Planning Department, San Francisco Preservation Bulletin No. 9, prepared January 2003, website: <http://www.sfgov.org/site/uploadedfiles/planning/preservation/PresBulletin09LANDMARKS.PDF>, accessed July 12, 2009.

Chinatown

The Chinatown Area Plan provides architectural and historical information about the development of Chinatown.²⁶ The City has the oldest and second largest Chinese American community in the United States. For over 100 years, Chinatown has stood in the same location. Grant Avenue located in the heart of Chinatown is the oldest street in the City. After the original Chinatown was destroyed in the 1906 earthquake, rebuilding was consciously geared to the visible identification of Chinatown as Chinese. In some cases, the original bricks were reused. Use of lively red, green and yellow colors, balconies with Chinese motifs, roof details, pagoda style towers at the Grant and California intersection were meant to attract shoppers to Chinese art goods bazaars and restaurants. The area includes over 250 historically and/or architecturally important buildings which date from Chinatown’s early post-earthquake years and retain their historic integrity.

²⁶ *City and County of San Francisco, Chinatown Area Plan.*

Civic Center

As described in the Civic Center Area Plan, the core of the Civic Center is composed of classic Greek revival structures of exceptional quality that set the architectural character of the area.²⁷ The symmetrical arrangement of buildings, uniform height, and application of common building lines and architectural features reinforce the unity of the formal composition.

Downtown

After the earthquake and fire there was a rush to rebuild and, by 1910, the area now considered the retail and financial districts, was largely rebuilt with little evidence of the disaster.²⁸ Many of the new buildings were designed by architects trained in the tradition of the Ecole de Beaux Arts in Paris. As a result, the downtown had a coherent, unified appearance, characterized by light-colored, masonry-clad structures from six to twelve stories in height with rich, distinctive, and eclectic designs.

From the Depression until the 1950s, no major buildings were constructed downtown. When construction resumed, buildings were of a much different character. Increasingly, they were much larger in scale than earlier buildings, often dark in color or with reflective glass, with few details to relate the building to pedestrians or to adjacent buildings. The new 'International Style' architecture made an office building a rectangular box with sheer, unornamented walls without setbacks or cornices.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

²⁷ City and County of San Francisco, *Civic Center Area Plan*.

²⁸ City and County of San Francisco, *Downtown Area Plan*.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Cultural resource impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, documented prehistoric and historical archaeological deposits are located within the Northern Gateway, Town Center, and South Basin Activity Nodes of the Bayview Hunters Point plan area, although archaeological sites may be located throughout the plan area. Ground-disturbing activities in close proximity to these sites may damage or destroy archaeological resources potentially eligible for inclusion in the California Register of Historical Resources (CRHR).

No historic structures have been identified within Candlestick Point Activity Node. However, historic properties within the Northern Gateway Activity Node, Town Center Activity Node, Health Center Activity Node, Oakinba Activity Node, South Basin Activity Node, and Hunter’s Point Shoreline Activity Node were identified in the Bayview Hunters Point Redevelopment Plan EIR.

To mitigate these potential impacts, the Bayview Hunters Point Redevelopment Plan EIR outlined several mitigation measures. With regard to archaeology, the Bayview Hunters Point Redevelopment Plan EIR requires that the appropriate archaeological surveys, testing programs, monitoring programs, and recovery programs be conducted. Impacts to architectural resources will be mitigated through the preparation of the appropriate documentation to meet the requirements set forth in the Secretary of the Interior’s standards. Implementation of mitigation measures outlined in the Bayview Hunters Point Redevelopment Plan EIR will ensure that impacts related to cultural resources remain less than significant.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, although there have been no prehistoric sites encountered within the Rincon Hill plan area, six prehistoric sites and an additional historic site recently encountered by Caltrans have been documented and recorded in the plan area. Implementation of the Rincon Hill Plan may result in a substantially greater potential to disturb soils below the existing surface than exists under current zoning, particularly given the proposed requirement that all residential parking be provided below grade. As significant archaeological resources are expected to be present within the existing subgrade soils, the Rincon Hill Plan may adversely affect significant archaeological resources. Implementation of mitigation measures outlined in the Rincon Hill Plan EIR will ensure that impacts related to archaeological resources remain less than significant.

Eight buildings in the Rincon Hill plan area were identified in the EIR as Significant Buildings based on architectural and historical attributes. One of those buildings, the Union Oil Company building will be demolished. This will result in a significant and unavoidable impact to historic resources. The Sailors' Union of the Pacific building will be rehabilitated, but all work will be done in accordance with applicable regulations and no impacts are expected. The other six identified Significant Buildings will not undergo any changes and thus, impacts are considered to be less than significant in the Rincon Hill Plan EIR. In addition, significant impacts will result from the anticipated demolition of the buildings are 347 and 375 Fremont Street, both of which are considered historic resources under CEQA. These impacts to architectural resources are considered to be significant and unavoidable under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, various archaeological resources are expected to be present within the Eastern Neighborhoods plan area. These include: prehistoric resources, Spanish/Mexican period adobe structures, early boat construction/repair yards, industrial facilities, deposits related to both domestic and commercial uses and to such notable institutions and establishments as the original San Francisco County Hospital (now General) the original St. Luke's Hospital, the Willows and Woodward's Gardens amusement parks, the Union Race Course, the Pacific Mail Steamship Co., the Magdalen Asylum and Female Industrial School, and remains associated with the early Butchertown District and the Mission Dolores Archaeological District. Certain portions of the Eastern Neighborhoods plan area are within Liquefaction Hazard Zones which will require soil support in the form of pilings or soils improvement techniques for future development, resulting in potential impacts to archaeological resources. Under the Eastern Neighborhoods Rezoning and Area Plans, appropriate archaeological surveys, testing programs, monitoring programs, and recovery programs will be conducted for any construction activities that could result in impacts to archaeological resources. According to the Eastern Neighborhoods Rezoning and Area Plans EIR, this mitigation would reduce potential impacts to a less than significant level.

It is likely that at least some future development proposals in the Eastern Neighborhoods plan area will result in demolition, alteration, or other changes to one or more architectural historical resources such that the historical significance of those resources would be "materially impaired." Therefore, the Eastern Neighborhoods Rezoning and Area Plans EIR concluded that the Eastern Neighborhoods Rezoning and Area Plans' impacts to architectural resources are significant and unavoidable.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, the increase in heights and density in the Market and Octavia Neighborhood plan area will have the potential to result in the disturbance of soils through foundation support, excavation for subsurface levels and, in some cases, utilities installation. There are a range of archaeological sites throughout the plan area that are eligible for the CRHR as well as proposed changes to land use in the Mission Dolores Archaeological District. Under the Market and Octavia Neighborhood Plan, appropriate archaeological surveys, testing programs, monitoring programs,

and recovery programs will be conducted. According to the Market and Octavia Neighborhood Plan EIR, this mitigation would reduce potential impacts to a less than significant level.

According to the Market and Octavia Neighborhood Plan EIR, infill development throughout the plan area may differ in scale, design, or materials than nearby historical resources, potentially altering their historic context. This will be particularly true on Market Street, west of Buchanan Street, and at or near the Market Street/South Van Ness Avenue intersection where height limits are being increased. No specific project has been identified that will directly alter these resources. Because the Market and Octavia Neighborhood Plan's goals and policies emphasize the preservation of landmarks and historic resources as an invaluable asset to the neighborhood and because future development projects directly affecting historic resources will require additional CEQA review, impacts are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as "other areas". This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to cultural resources due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the "other areas". Potential cultural resources impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to cultural resources and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to cause a substantial adverse change to the significance of a historical or archaeological resource, destroy a unique paleontological or geological feature, or disturb any human remains would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the "other areas" could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to cultural resources. Any new development would also be subject to the applicable requirements and standards set

forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to cultural resources would be less than significant.

Cumulative Impacts

The geographic context for cumulative cultural resources impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to cultural resources. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to cultural resources. The contribution of potential impacts from the proposed project to any cumulative cultural resource impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

F. TRANSPORTATION AND CIRCULATION

INTRODUCTION

This section addresses potential project impacts related to traffic load, the level of service standard, air traffic patterns, design feature hazards and compatibility of uses, the adequacy of emergency access, the adequacy of parking capacity, and potential conflicts with adopted policies and programs that support alternative transportation.

ENVIRONMENTAL SETTING

Regional Transit Services

Caltrain

Caltrain provides commuter rail service between Santa Clara and San Francisco Counties. A total of 86 trains, including ten express trains, run along the San Francisco Bay Peninsula each weekday, and nearly 32,000 people ride Caltrain each day. Caltrain's San Francisco Terminal is located at Fourth and Townsend Streets, located roughly in the center of the project area. Several San Francisco Municipal Railway (MUNI) local and express buses and one metro line serve this station. Approximately 7,150 daily passengers currently board at the San Francisco Terminal.¹

Bay Area Rapid Transit (BART)

BART provides regional transit services, connecting San Francisco with Millbrae in the Peninsula and Richmond, Fremont and Dublin in the East Bay. In 2008, BART reported an average of 357,775 weekday riders throughout the entire system.² Connections providing access to the project area can be made at the following BART stations: Embarcadero, Montgomery, Powell, Civic Center, 16th Street Mission, and 24th Street Mission.

Alameda-Contra Costa Transit District (AC Transit)

AC Transit is the primary bus transit operator for the East Bay counties of Alameda and Contra Costa. AC Transit operates 27 routes from the East Bay into the San Francisco Transbay Terminal. The Transbay Terminal is located roughly in the center of a rectangle bounded north-south by Mission Street and Howard Street, and east-west by Beale Street and Second Street. Most of the Transbay service is

¹ *City and County of San Francisco Planning Department, Central Subway/Third Street Light Rail Phase 2, Supplemental Draft Environmental Impact Statement/Supplemental Draft Environmental Impact Report, October 17, 2007, SCH # 96102097, at page 3-13.*

² *Bay Area Rapid Transit (BART), BART Ridership Reports, Fiscal Year Average Weekday Exits by Station, http://www.bart.gov/docs/station_exits_FY.pdf, accessed July 13, 2009.*

designed for commuters and operates during peak hours only. In 2006 the total average weekday ridership on the transbay routes was approximately 11,300 passengers.³

Golden Gate Transit

Golden Gate Transit provides service to riders from Sonoma and Marin Counties in the North Bay, to San Francisco. Each weekday, the system brings nearly 5,000 riders into the City over a system of 18 commute express and three all-day basic bus routes. Most routes serve either the Civic Center via the Van Ness corridor or the Financial District via Battery/Sansome Streets. Transfers to other regional operators can be made along Mission Street and at the Transbay Terminal. Basic routes provide evening and late night service to San Francisco.⁴

San Mateo County Transit District (Sam Trans)

Sam Trans is the primary public transit operator for San Mateo County; the system provides 54 public transit routes, with eight routes providing express service, 17 routes providing community circulator service and 29 routes connecting to the Caltrain and/or BART systems. The service area stretches from northern Santa Clara County to Downtown San Francisco, with several routes terminating at the Transbay Terminal. Passengers can transfer to MUNI, AC Transit and Golden Gate Transit buses at the Transbay Terminal. The express routes provide service into Downtown San Francisco via the freeways and local streets.⁵

Bay Area Ferry Service

Ferry service is provided between San Francisco and Vallejo, Oakland, Alameda and Tiburon by the Blue and Gold Fleet. Golden Gate Transit operates ferry service between San Francisco and Larkspur and Sausalito. All ferries serve the Ferry Terminal located on The Embarcadero, at the foot of Market Street.

City of San Francisco Transit Services

San Francisco Municipal Railway

MUNI provides 20-hour a day (5 a.m. to 1 a.m.), daily access to most locations within San Francisco, and 24-hour a day daily service to ten key transit corridors throughout San Francisco. All of the 80 transit lines, except one which operates only weekdays, operate seven days a week. Stops are provided within two blocks of 90 percent of residences in the City. MUNI operates six modes of vehicles: historic streetcars, modern light rail vehicles, diesel buses, alternative fuel vehicles, electric trolley coaches, and

³ City and County of San Francisco Planning Department, *Central Subway/Third Street Light Rail Phase 2, Supplemental Draft Environmental Impact Statement/Supplemental Draft Environmental Impact Report, October 17, 2007, SCH # 96102097, at page 3-14.*

⁴ Golden Gate Transit, website: <http://goldengatetransit.org/>, accessed July 13, 2009.

⁵ San Mateo County Transit District (SamTrans) *Short Range Transit Plan FY 2008-FY 2017.*

cable cars.⁶ Equipment demand by mode is shown in Table V.F-1. In addition, MUNI provides paratransit service by contract.⁷ The entire system carries over 672,000 riders each weekday, totaling approximately 204 million riders annually, making MUNI the most heavily utilized transit system in the Bay Area.⁸

Table V.F-1
2008 MUNI Equipment Demand by Mode

Mode	Number
Diesel Buses	495
Cable Cars	40
Historic Streetcars	26
Light Rail Vehicles (Metro)	151
Trolley Buses	333
Total Service Vehicles	1,045

Source: San Francisco Municipal Transportation Agency, San Francisco Transportation Fact Sheet, May 2008, at page 5, website: <http://www.sfmta.com/cms/ains/documents/SFTransportationFactSheet2008.pdf>, accessed July 13, 2009.

Although the MUNI route network is a modified grid that allows multi-declinal travel, approximately two-thirds of the 80 MUNI routes are radial lines that travel from the neighborhoods to Downtown San Francisco. This includes 36 local or radial lines and 16 express lines. In addition there are 13 cross-town lines that run north-south, east-west or circumferential and 12 community service lines that fill in the gaps or serve areas of steep topography within the City. Two special owl service routes are also included (lines 90 and 91), that operate between the hours of 1 a.m. and 5 a.m. Late night service is also provided by eight regular routes on L, N, 5, 14, 22, 24, 38, and 108 lines.⁹ Table V.F-2 displays the distribution of service between these five types of lines for an average weekday.

Van Ness Avenue is a key north-south spine in San Francisco's transit system, linking important east-west transit routes (such as the 38-Geary) as well as regional services (MUNI Metro, Caltrain, and BART).¹⁰ Currently, Van Ness buses do not operate as quickly or reliably as is needed to provide rapid travel and effective connections. The Transportation Authority, in close coordination with the Municipal

⁶ San Francisco Municipal Transportation Agency (SFMTA), Transit, website: <http://www.sfmta.com/cms/mhome/home50.htm>, accessed July 13, 2009.

⁷ SFMTA, Paratransit, website: http://www.sfmta.com/cms/raccess/mag2003.htm#_Toc38090690, accessed July 13, 2009.

⁸ SFMTA Short Range Transit Plan FY 2008-2027 Public Draft, October 2, 2007, at page 4-1.

⁹ City and County of San Francisco Planning Department, Central Subway/Third Street Light Rail Phase 2, Supplemental Draft Environmental Impact Statement/Supplemental Draft Environmental Impact Report, October 17, 2007, SCH # 96102097, at page 3-2.

¹⁰ SFMTA, Van Ness Avenue Bus Rapid Transit, website: <http://www.sfcta.org/content/view/306/152/#Background>, accessed October 8, 2009.

Transportation Agency (SFMTA), completed the Van Ness Avenue Bus Rapid Transit (BRT) Feasibility Study as a first step towards bringing major bus improvements to Van Ness Avenue. A joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is currently being prepared to meet federal and state rules.

**Table V.F-2
 MUNI Service by Line Type**

Line Type	Number of Routes	Percent of Total
Radial	36	45.6%
Crosstown	13	16.4%
Community	12	15.2%
Express	16	20.3%
Owl	2	2.5%
Total	79	100%
<i>Source: SFMTA Short Range Transit Plan FY 2008-2027 Public Draft, October 2, 2007, at page 4-4.</i>		

Paratransit, Shuttles, and Taxi Services

Public transit operators offer a variety of transportation choices in San Francisco. Consistent with the requirements of the Americans with Disabilities Act (ADA), these services are largely accessible to and usable by persons with disabilities. Some persons with disabilities, however, are not able to make use of the fixed route transit system, even when it is fully accessible. For these persons, paratransit services are available. The San Francisco Paratransit Program provides a range of services to ADA-eligible riders, including Lift Van and ADA Access (pre-scheduled, door-to-door services), Group Van services, and Taxi services, including ramp taxis for persons in wheelchairs.¹¹

Existing Roadway Network

The project area contains major north-south roadways that connect the southeastern quadrant of San Francisco with Downtown and provide regional connections to the Peninsula, East Bay, and Marin County. It also contains principal thoroughfares that distribute traffic in the South of Market, Russian Hill/Nob Hill, Downtown/Civic Center, Chinatown/North Beach, Western Addition, Bayview/Hunters Point, Marina/Pacific Heights, and Mission districts.

Arterials

Within the project area, Broadway, Embarcadero, Geary, Folsom, Harrison, Bryant, Brannan, King, Third, Sixth, Seventh (north of Bryant), Eighth, Ninth, Tenth, and Division Streets, along with César

¹¹ San Francisco Paratransit, General Information, website: <http://www.sfparatransit.com/general.aspx>, accessed July 13, 2009.

Chávez Street (Guerrero to Third), South Van Ness Avenue, Potrero Avenue, and Evans Avenue (between César Chávez and Third) are designated in the General Plan Transportation Element as Major Arterials. The General Plan defines Major Arterials as “cross-town thoroughfares whose primary function is to link districts within the City and to distribute traffic from and to the freeways.”¹² Guerrero, Valencia, Seventh (south of Bryant), and 16th Streets, along with César Chávez Street (east of Third), and Evans Avenue (between Third and Jennings) are Minor Arterials. Harrison, Bryant, King, Mission, Third, and 16th Streets, and Potrero Avenue are Transit-Preferential (Transit Important) Streets, where “balance between modes” is appropriate and the “emphasis should be on moving people and goods, rather than on moving vehicles.” The General Plan also classifies Harrison, Bryant, Valencia, Mission, Second, and Third Streets as Neighborhood Commercial (Neighborhood Pedestrian) Streets.

Highway 101

This principal north-south highway links San Francisco with the Peninsula to the south and with Marin County to the north. Between Interstate 80 (I-80) and Interstate 280 (I-280), the limited access Highway 101 has ten traffic lanes. Between I-80 and the Golden Gate Bridge, Highway 101 is a six-lane surface street along South Van Ness Avenue, Van Ness Avenue, Lombard Street, Richardson Avenue, and Doyle Drive to the Golden Gate Bridge. At the intersection of Cesar Chavez Street, Highway 101 carries over 246,000 vehicles per day.¹³ The Golden Gate Bridge carries over 110,000 passenger and freight vehicles per day.

State Route 1 (19th Avenue)

State Route 1 (SR 1), often called Highway 1, is a six-lane highway that provides the primary access to and from the Golden Gate Bridge, which connects San Francisco to the North Bay. Highway 1 runs through the western half of San Francisco, along 19th Avenue, Crossover Drive, and Park Presidio before it joins with Highway 101 at the Golden Gate Bridge.

Interstate 280

Interstate 280 (I-280) is a ten-lane freeway that runs approximately seven miles through San Francisco, connecting the Peninsula with the southwestern quadrant of San Francisco. For southbound traffic, I-280 provides a direct connection around the east side of Potrero Hill to Highway 101. Northbound traffic can use I-280 to access Potrero Hill and Mission Bay neighborhoods. I-280’s northern terminus consists of a

¹² City of San Francisco Planning Department, *San Francisco General Plan Transportation Element, Amended by Resolution 16942, February 3, 2005.*

¹³ City and County of San Francisco Planning Department, *Central Subway/Third Street Light Rail Phase 2, Supplemental Draft Environmental Impact Statement/Supplemental Draft Environmental Impact Report, October 17, 2007.*

pair of on and off-ramps in the South of Market Area, at Sixth and Brannan Streets and at Fifth and King Streets. I-280 at Mariposa Street (south of the on and off-ramps) carries over 106,000 vehicles per day.¹⁴

Interstate 80

Interstate 80 (I-80) provides the primary access to and from the San Francisco Oakland Bay Bridge (Bay Bridge), which connects San Francisco to the East Bay. I-80 also connects directly with Highway 101, west of Ninth Street. In the vicinity of Third and Fourth Streets, I-80 has three through lanes in each direction. I-80 provides access to the Bay Bridge, which carries up to 294,000 vehicles per day.¹⁵ A set of on and off-ramps is located at Fifth Street and Fourth Street for eastbound and westbound I-80 traffic.

Street System

San Francisco's street system comprises close to 30 percent of the entire land area of San Francisco, by far the largest publicly owned resource in the City and second only to housing in terms of the use of land. San Francisco's streets are laid out in an almost regular grid of rectangular blocks. Some neighborhoods have smaller blocks, and several (such as Chinatown and the Mission) have public alleys that provide access to the middle of blocks. Blocks in the South of Market Area typically are four times as large as the typical north of Market block. San Francisco's grid street system is an asset for many reasons. It provides spectacular long views that often end at the water. The grid system is especially advantageous for the City's transportation needs. It offers multiple route options for getting from place to place. Pedestrians, cars, transit, and bicycles can disperse through many streets rather than funnel onto a few major thoroughfares. Major transportation corridors include 19th Avenue, Van Ness Avenue, Geary Street, and 3rd Street. All of these corridors, except 19th Avenue, are directly accessible from the project area.

Bicycle Facilities

San Francisco has an evolving bicycle network, first established in the 1997 Bicycle Plan. The 2009 San Francisco Bicycle Plan includes updated goals and objectives to encourage bicycle use in the City, describes the existing bicycle route network (a series of interconnected streets and pathways on which bicycling is encouraged) and identifies improvements to achieve the established goals and objectives. The bicycle network includes the following facilities: 45 miles of bicycle lanes, 23 miles of bicycle paths, and 132 miles of bicycle routes totaling 205 miles of bicycle facilities.¹⁶ Bicycle facilities also include secure on-street bicycle parking, bicycle parking at BART and Caltrain stations, bicycle racks provided on the front of MUNI and other transit operator buses, and BART, Caltrain and ferries also have the capacity to carry bicycles. There are numerous bicycle routes located within the project area, including (but not limited to) Route 7 (Mission Bay to Bayview), Route 11 (Fisherman's Wharf to AT&T Park), and Route

¹⁴ *Id.* at page 3-16.

¹⁵ *Id.* at page 3-16.

¹⁶ *San Francisco Bicycle Plan, Approved June 26, 2009, at page 1-3.*

23 (Civic Center to Mission Bay).¹⁷ Folsom, Townsend, Valencia, Second, Seventh, Division, César Chávez, and Indiana Streets, as well as Potrero Avenue and Evans Avenue, are designated as Bicycle Routes. Portions of Valencia, Eighth, Division, and César Chávez Streets and Potrero and Evans Avenues have bicycle lanes.¹⁸

Pedestrian Facilities

Walking is promoted by building out the citywide pedestrian network as well as by providing standard pedestrian facilities such as sidewalks, curb ramps, crosswalks, islands, countdown signals and other amenities that improve the pedestrian environment. Notable elements of the pedestrian network include plazas (Ferry Building) and pedestrian-only streets (such as Claude and Belden Lanes and the recent Herb Caen Way) in the downtown area. In addition, mid-block stairways and alleys are found throughout the city, from Chinatown to Twin Peaks, to Bernal Heights, to Visitacion Valley. Intersection density, the number of intersections per square mile, is also an indicator of the walkability of an area. For example, Downtown neighborhoods have smaller blocks and alleys providing more access, direct route choices, and shorter crossing distances for people on foot. San Francisco, even with its hills, has evolved an infrastructure that can support walking as a mode of transportation. San Francisco's grid system makes direct routes for pedestrians much more frequent than what is found in typical suburban layouts of curvilinear streets and cul-de-sacs.¹⁹

Parking

One of the most important ways in which the City manages both the supply of and demand for street capacity is through its management of the parking supply. San Francisco's parking supply consists of on-street (metered, signed, colored curb and unregulated) and off-street (garages and lots) spaces. There are further distinctions between public or private ownership and short or long-term use of land. The City's privately owned supplies of parking include publicly available off-street facilities for employees, shoppers and residential use. The publicly-owned supply includes 23,000 metered on-street spaces, and 12,000 signed or colored curb spaces. In addition, the Parking Authority manages nineteen publicly owned parking garages and twenty-one metered parking lots, and the Department of Parking and Traffic manages the Residential Permit Program, encompassing 94,000 on-street parking spaces in neighborhoods throughout the City.²⁰ Parking availability varies throughout the project area. In more densely populated neighborhoods, such as Downtown, Chinatown, Nob Hill, and Russian Hill, parking is scarce, and often expensive. Parking is normally provided for residents with valid permits, at metered

¹⁷ *Ibid.*, at Appendix 2.

¹⁸ *City of San Francisco Planning Department, Eastern Neighborhoods Rezoning and Area Plans Draft Environmental Impact Report, June 2007, SCH # 2005032048.*

¹⁹ *City of San Francisco Planning Department, San Francisco General Plan Transportation Element, Amended by Resolution 16942, February 3, 2005.*

²⁰ *San Francisco County Transportation Authority, Countywide Transportation Plan, July 2004, at page 38.*

spaces, and in residential or private parking garages. In other areas such as Bayview or Hunter’s Point, on-street parking is widely available, while private garages and metered parking are less common.

Transportation Demand

Transportation demand is defined by the total number and percentage of trips taken by mode of transportation. The modes include auto (including carpools), transit, bicycle, and walking. It is estimated that in 2000, San Francisco’s transportation system carried 4.5 million trips per day, most of which occurred by auto (62 percent) and transit (17.2 percent). Of this total, about 1.4 million trips (30 percent) were regional in nature, meaning they had an origin or destination outside the City, or passed through the City entirely. The remaining 70 percent of trips were internal to San Francisco, meaning they had an origin and destination within the City. Table V.F-3 shows the modal shares of all trips within San Francisco and Table V.F-4 shows the modal shares of internal San Francisco trips only.

**Table V.F-3
 Mode Share-All Trips (Regional and Internal Trips)**

Mode	Share-2000 Base
Auto	62.2%
Transit	17.2%
Bike	0.9%
Walk	19.7%
Total	100.0%
<i>Source: San Francisco County Transportation Authority, Countywide Transportation Plan, July 2004, at page 39.</i>	

Work trips account for about a quarter to a third of all trips in San Francisco.²¹ According to the 2000 Census, San Franciscans use a variety of modes of transportation to get to work. As Table V.F-5 shows, 31 percent of residents used transit to get to and from work. This percentage is lower than in 1990, when 33 percent reported work trips in this category. The proportion of San Francisco workers that walked or carpooled also dropped from 1990.²² While the data does not specifically state the reasons for these trends, it is likely that the affluence created by economic conditions in the late 1990’s caused a shift to auto travel. Possibly due to the economic decline of the early 2000’s, data from the San Francisco Model and findings from the Metropolitan Transportation Commission’s (MTC) Commute Profile 2005 show that transit’s share of commute trips has reversed its decline, increasing to 35 percent in 2005.²³ The Commute Profile 2005 also shows that 10 percent of San Franciscans walk to work. The 2000 Census and the Commute Profile 2005 found that about 7,500 (two percent) of San Francisco residents use bicycles to

²¹ San Francisco County Transportation Authority, *Countywide Transportation Plan, July 2004, at page 40.*

²² U.S. Census Bureau, *decennial Censuses – 1990, 2000.*

²³ Metropolitan Transportation Commission, *Commute Profile 2005-Regional Report, June 2005, at page 11.*

get to work; this is the highest percentage of bicycle use to work of any U.S. city with a population over 500,000.²⁴

**Table V.F-4
 Mode Share- Internal Trips**

Mode	Share-2000 Base
Auto	54.2%
Transit	16.4%
Bike	1.0%
Walk	28.3%
Total	100.0%

Source: San Francisco County Transportation Authority, Countywide Transportation Plan, July 2004, at page 39.

**Table V.F-5
 Commute Mode of San Francisco Residents, 1990-2000**

Year	Drive Alone	Carpool	Transit	Walk	Other (Bicycle, Taxi, etc.)	Worked at Home	Number of Workers
1990	147,187	43,925	128,160	37,611	10,947	14,479	382,309
Percent	38.5%	11.5%	33.5%	9.8%	3.9%	3.8%	100.0%
2000	169,508	45,152	130,311	39,192	15,014	19,376	418,553
Percent	40.5%	10.8%	31.1%	9.4%	3.6%	4.6%	100.0%

Source: U.S. Census Bureau, decennial Censuses - 1990, 2000.

One of the most pronounced demographic and economic changes for the City over the past 35 years has been the growth in people commuting into and out of the City to work (as opposed to living and working in San Francisco). Over the past several monitoring cycles, congestion on the City's Congestion Management Network has remained stable although speeds on some specific network segments have dropped.²⁵ Notably, most of the freeway segments (and the local approaches to these) continue to exhibit congested conditions.

IMPACTS

Significance Thresholds

The significance thresholds relating to transportation and circulation are as follows:

²⁴ San Francisco County Transportation Authority, Countywide Transportation Plan, July 2004, at page 40.

²⁵ *Ibid.*, at page 41.

- Project-related traffic would cause the intersection level of service to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The operational impacts on unsignalized intersections are considered potentially significant if project-related traffic would cause the level of service at the worst approach to deteriorate from LOS D or better to LOS E or F and Caltrans signal warrants would be met, or if project-related traffic would cause Caltrans signal warrants to be met when the worst approach is already operating at LOS E or 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.
- San Francisco does not consider parking supply as part of the permanent physical environment. 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 (I) physical impacts that could be triggered by a social impact (CEQA Guidelines Section 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 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 Section 16.102 provides that "parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation."

The transportation analysis accounts for potential secondary effects, such as cars circling and looking for a parking space in areas of limited parking supply, by assuming that all drivers would attempt to find parking at or near the project site and then seek parking farther away if convenient parking is not available. Moreover, the secondary effects of drivers searching for parking is typically offset by a reduction in vehicle trips due to others who are aware of constrained conditions in a given area. Hence, any secondary environmental impacts which may result from a shortfall in parking in the vicinity of the project site would be minor, and

the traffic assignments used in the transportation analysis, as well as in the associated air quality, noise and pedestrian safety analyses, reasonably addresses potential secondary effects.

- 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 lines analysis, 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 PM 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.
- Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Transportation and circulation impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

The Bayview Hunters Point Redevelopment Plan EIR found that the additional trips that will be generated by implementation of the Plan will deteriorate levels of service to unacceptable levels at seven study intersections in the weekday PM peak hour. According to the Bayview Hunters Point Redevelopment Plan EIR, the intersections of Third Street/Cesar Chavez Street, Third Street/Evans Avenue, Bayshore

Boulevard/Silver Avenue, Bayshore Boulevard/Industrial Street/Alemanly Boulevard, and Evans Avenue/Cesar Chavez Street will be considered to have significant and unavoidable impacts because no mitigation is available to improve LOS to an acceptable level. In addition, the freeway segment at northbound US 101 south of I-280 will be considered to have a significant and unavoidable impact as no feasible mitigation is available.

All MUNI bus lines will operate substantially below capacity for both inbound and outbound directions, except the west screenline in the inbound direction. In addition, the Bayview Hunters Point Redevelopment Plan EIR concluded that the Plan will not have a significant adverse impact related to regional transit service.

As most of the streets in Bayview Hunters Point plan area have sidewalks and the estimated pedestrian trips would be dispersed throughout the plan area, no significant pedestrian impacts will be expected. The 79 bicycle trips that will be generated by Plan implementation will be dispersed throughout Bayview Hunters Point during the PM peak hour; therefore, no significant bicycle impacts will be expected under the Bayview Hunters Point Redevelopment Plan EIR.

According to the Bayview Hunters Point Redevelopment Plan EIR, the potential impacts related to construction activities for individual developments in the Bayview Hunters Point plan area due to Plan implementation are not considered significant as they are temporary and of short-term duration. The City of San Francisco has established requirements and procedures for construction projects. Specific impacts for each development will be analyzed on a project-by-project basis.

Rincon Hill Plan EIR

The Rincon Hill Plan EIR found that the addition of traffic from implementation of the Rincon Hill Plan and the proposed changes in street configurations under the Plan will result in a significant impact at six intersections (Fremont/Harrison, which would degrade from LOS E to LOS F; and First/Market, Beale/Folsom, Main/Folsom, Spear/Folsom, and Embarcadero/Folsom which would all degrade from LOS D or better to LOS F). Mitigation measures outlined in the Rincon Hill Plan EIR may achieve acceptable levels of service at the Beale/Folsom, Main/Folsom, and Spear/Folsom intersections, but not at other intersections analyzed where LOS would be E or F; that impact may not be mitigated. The Rincon Hill Plan EIR concluded that the Rincon Hill Plan will result in significant effects to intersection levels of service. According to the Rincon Hill Plan EIR, the Plan will not however, result in significant impacts to transit, parking and loading, or pedestrian and bicycle conditions.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, implementation of all options of the Rezoning Plans will result in significant impacts to intersection levels of service. It is not anticipated that significant adverse effects at local intersections may be fully mitigated, and thus, these impacts are

considered to be significant and unavoidable under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Each of the proposed rezoning options under the Eastern Neighborhood Area Plans will also contribute to significant cumulative impacts on MUNI lines. Mitigation will necessitate the identification of new funding source(s) to supplement the City's Transit Impact Development Fee program for non-residential uses, to enable MUNI to accommodate projected transit demand within the Eastern Neighborhoods and the remainder of the City, including meeting capital needs such as bus storage. Additionally, further mitigation will include additional and enhanced MUNI service, transit priority on certain streets, improvement of transportation demand management, establishment of a coordinated planning process to link land use planning and development in the Eastern Neighborhoods to transit and other alternative transportation mode planning in the eastern portion of the City. However, it is not anticipated that the significant adverse effects on MUNI service may be fully mitigated, and therefore the Eastern Neighborhood Rezoning and Area Plan's effect on MUNI service is considered to be a potentially significant impact.

The analysis of pedestrian and bicycle impacts is specific to individual development projects, and will include a discussion of the anticipated number of pedestrian and bicycle trips that will be generated during the weekday PM peak hour, the existing and proposed width of the adjacent sidewalks, the existing and planned bicycle routes/lanes in the area, a comparison of proposed bicycle parking spaces to the Planning Code requirements, and an assessment of potential safety concerns and conflict locations. As such, separate pedestrian and bicycle impact analyses will need to be conducted for future development projects in the Eastern Neighborhoods. In summary, pedestrian and bicycle impacts will be less than significant.

The projected growth in residential housing units and employment within the four neighborhoods will result in an increased parking supply and demand. The extent to which new parking demand will be accommodated will depend on the existing parking supply that the new development will displace and the intensity of use. Individual development projects will be required to comply with provisions of the Planning Code pertaining to vehicle parking and carsharing spaces, and with Planning Code provisions and Planning Commission policy regarding separation of parking costs from housing costs in new residential buildings.

Because many of the new use districts proposed by the Plan will eliminate minimum parking requirements and instead impose parking maximums for both residential and non-residential uses, it is anticipated that there will be a substantially greater shortfall in parking supply versus demand. However, parking supply is not considered to be a part of the permanent physical environment in San Francisco, as parking conditions are changeable. Parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Therefore, the anticipated parking shortfall is considered to be a less-than-significant effect in the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

The Market and Octavia Neighborhood Plan EIR found that the Market and Octavia Neighborhood Plan will result in significant and unavoidable impacts related to increased delays at the following intersections: Hayes/Gough Streets and Hayes/Franklin Streets. Some of these identified impacts could be reduced if the existing street configuration is maintained. The Laguna Street/Market Street/Hermann Street/Guerrero Street intersection will worsen from LOS D to LOS E due to increased intersection volumes. Because this intersection will worsen to an unsatisfactory level of service under 2025 with Plan condition, this will be a significant impact that may be reduced with applicable mitigation measures (e.g., adding travel lanes, protected left-turns, minor changes to signal timing, right-turn pocket, and changes to traffic patterns), but will remain significant and unavoidable. The Market and Octavia Neighborhood Plan will result in significant and unavoidable impacts related to increased delays because the feasibility of the signal timing changes, which are proposed mitigation measures, has not yet been fully assessed at the following intersections: Laguna/Market/Hermann/Guerrero Streets, Market/Sanchez/Fifteenth Streets, Market/Church/Fourteenth Streets, Mission Street/Otis Street/South Van Ness Avenue, and Hayes Street/Van Ness Avenue. According to the Market and Octavia Neighborhood Plan EIR, the Plan will result in significant and unavoidable impacts related to degradation of transit service because the feasibility of the signal timing changes, which are proposed mitigation measures, has not yet been fully assessed at Hayes Street intersections at Van Ness Avenue, Franklin Street, and Gough Street.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to transportation and circulation due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential transportation and circulation impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to transportation and circulation and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to cause a substantial increase in traffic, exceed an established level of service standard, change air traffic patterns, increase hazards caused by a design feature, cause inadequate emergency access, conflict with adopted policies or programs supporting alternative transportation, or increase transit demands that cannot be accommodated by existing or proposed transit would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to transportation and circulation. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to transportation and circulation would be less than significant.

Cumulative Impacts

Cumulative impacts related to transportation and circulation are generally regional in nature, and affect geographical areas beyond the project area. Therefore, the geographic context for cumulative transportation and circulation impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to transportation and circulation. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to transportation and circulation. The contribution of potential impacts from the proposed project to the cumulative transportation and circulation impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

G. NOISE

INTRODUCTION

This section addresses potential project impacts related to noise exposure, groundborne vibration exposure, permanent ambient noise levels, temporary ambient noise levels, noise generated from public airports and private airstrips, and effects of existing noise levels.

ENVIRONMENTAL SETTING

The majority of the City is urban in nature and is expected to experience higher noise levels due to roadway traffic and other human activities. Major thoroughfares within the City include Interstate 80, Interstate 280, Highway 101, State Route 1 (19th Avenue), Market Street, Van Ness Avenue, and Geary Boulevard. Other sources of noise include construction work and emergency sirens. Ground transportation noises from trucks, buses, motorcycles, and poorly muffled automobiles predominate over other types of noises as the most persistent cause for complaint in the City.¹

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. Possible causes of this objectionable nature are the pitch and/or loudness of a given sound. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals are perceived as louder to humans than signals with a lower pitch. Loudness is the intensity of sound waves combined with the reception characteristics of the ear. The intensity of sound may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc.

There are several methods of characterizing sound. The most common in California is the A-weighted sound level or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table V.G-1. Because sound levels can vary markedly over a short period of time, a method for describing either the

¹ *City and County of San Francisco, Planning Department, Environmental Protection Element of the General Plan.*

average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This energy-equivalent sound/noise descriptor is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

**Table V.G-1
Typical Sound Levels Measured in the Environment and Industry**

Noise Source at a Given Distance	dBA	Noise Environment	Subjective Impression
	140		
Civil defense siren, 100'	130		
Jet takeoff, 200'	120		Pain threshold
	110	Rock music concert	
Diesel pile driver, 100'	100		Very loud
	90	Boiler room	
Freight cars, 50'		Printing press plant	
Pneumatic drill, 50'	80		
Freeway, 100'		Kitchen with garbage disposal running	
Vacuum cleaner, 10'	70		Moderately loud
	60	Data processing center	
Light traffic, 100'	50	Department store	
Large transformer, 200'			
	40	Private business office	
Soft whisper, 5'	30	Quiet bedroom	
	20	Recording studio	
	10		Threshold of hearing
	0		

Source: Illingworth & Rodkin, Inc., January 2004.

Solid walls, berms, or elevation differences typically reduce outdoor noise levels by 5 to 10 dBA. Sound levels for an outdoor noise source may also be attenuated 3 to 5 dBA by a first row of houses and 1.5 dBA for each additional row of houses. Solid walls and windows typically reduce interior noise levels in residential structures by 17 dBA with windows open to 30 dBA with windows closed.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus one dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus one to two dBA.

The trained healthy human ear is able to discern changes in sound levels of one dBA, when exposed to steady, single frequency “pure tone” signals in the mid-frequency range under controlled conditions, in an acoustics laboratory. Outside of such controlled conditions, the trained ear can detect changes of two dBA in normal environmental noise. It is widely accepted that the average healthy ear, however, can barely perceive noise level changes of three dBA. Changes from three to five dBA may be noticed by some individuals who are extremely sensitive to changes in noise. A five dBA increase is readily noticeable, while the human ear perceives a 10 dBA increase as a doubling of sound.

Since the sensitivity to noise increases during the evening and at night – because excessive noise interferes with the ability to sleep – 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 PM - 10:00 PM) and a 10 dB addition to nocturnal (10:00 PM - 7:00 AM) noise levels. The Day/Night Average Sound Level, L_{dn} , is essentially the same as CNEL, with the exception that the evening time period is dropped, and all occurrences during this three-hour period are grouped into the daytime period.

The thresholds for speech interference indoors are about 45 dBA, if the noise is steady, and above 55 dBA, if the noise is fluctuating. Outdoors these thresholds are about 15 dBA higher. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn} . Typically, the highest steady traffic noise level during the daytime is approximately equal to the L_{dn} and nighttime levels are 10 dBA lower.

Fundamentals of Groundborne Vibration

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called groundborne noise. The ground motion caused by vibration is measured as particle velocity in inches per second and in the United States is referenced as vibration decibels (VdB).

The background vibration velocity level in residential areas is usually approximately 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The

range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

The general human response to different levels of groundborne vibration velocity levels is described in Table V.G-2.

**Table V.G-2
 Human Response to Different Levels of Groundborne Vibration**

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, Page 7-8, May 2006, website: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.</i>	

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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;
- Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- 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;
- 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; or
- Be substantially affected by existing noise levels.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Noise impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, construction-related noise impacts resulting from implementation of the Plan will have a short-term impact at individual project locations. In addition to noise from the construction sites, construction activities will cause increased traffic noise along access routes to the development sites. However, construction activities in the area will be conducted in compliance with the San Francisco Noise Ordinance (Article 29, San Francisco Police Code). Compliance with Section 2908 of the Noise Ordinance prohibits construction work between 8:00 PM and 7:00 AM. 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, such as jackhammers and impact wrenches, must have both intake and exhaust muffled to the satisfaction of the director of Public Works. Compliance will reduce any impacts to a less than significant level.

The EIR found that the Plan will also introduce a variety of stationary sources of noise, including electrical and mechanical air conditioning equipment, most of which will be located on rooftops. Existing ambient noise conditions within the area will generally mask on-site equipment noise. Therefore, the area plan EIR found that noise levels from operation of equipment will result in an increase of ambient noise levels that will be less than significant.

Traffic resulting from Plan implementation may result in noise impacts at major intersections. Project-related traffic may add more cars to area roadways, and may increase the noise associated with existing traffic to travel at slower speeds. According to the Bayview Hunters Point Redevelopment Plan EIR, development resulting from the Plan will create a less than significant increase in noise levels in the area because the noise levels would not increase above 2.8 dBA, which is less than what the San Francisco Noise Ordinance defines as nuisance noise (increases of 5 dBA above ambient conditions).

The Plan includes an Enhanced Truck Route Program, which will designate truck routes to divert traffic away from residential areas and will physically improve truck routes with landscaping appropriate for truck “parkways.” Although the specific routes are not finalized, it is assumed that the new truck routes will have an overall beneficial effect on the noise environment in the area by focusing truck traffic on nonresidential routes.

Implementation of the Plan may result in new or expanded retail and entertainment uses that may affect nearby residences. While the associated noise conditions may disturb residents occupying new buildings in the vicinity, noise impacts will be limited by the noise insulation requirements for new residential construction per Title 24 of the California Code of Regulations and the San Francisco Noise Control Ordinance (Article 29), project review requirements for entertainment uses in the area, and enforcement of the San Francisco Noise Ordinance. Title 24 requires meeting an interior standard of 45 dBA (Ldn) in any habitable room and, where such units are proposed in areas subject to noise levels greater than 60 dBA (Ldn), demonstrating how dwelling units have been designed to meet this interior standard. The Plan will mainly rezone existing industrial land uses to new PDR zoning designations to create distinct industrial areas and residential uses mixed with commercial and PDR uses along the Third Street corridor. These land uses will not differ with existing land uses with respect to ambient noises. However, the rezoning proposed by the Plan will create a buffer or transition zone by placing light PDR zones between heavy PDR zones and residential and other sensitive receptors. Exterior noise levels may increase and result in associated interior noise level increases. According to the EIR, these increases will not be of the magnitude to substantially alter the exterior noise environment and will not result in a significant impact. All impacts related to noise are considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, traffic must generally double in volume to produce a noticeable increase in noise levels. As a result of implementation of the Plan, traffic volumes in the area will not be expected to double on area roadways. Therefore, substantial increases in traffic noise in Rincon Hill area would not be anticipated. Traffic noise impacts were therefore found to be less than significant under the area plan EIR.

Implementation of the Rincon Hill Plan would increase residential and commercial densities in the Rincon Hill area. Compliance with applicable regulations (including the San Francisco Noise Control Ordinance [Article 29]) would ensure that existing noise levels would not significantly affect individual developments resulting from the Plan.

Individual developments would include mechanical equipment such as air conditioning units and chillers that may produce operational noise. Compliance with applicable regulations (including the San Francisco Noise Control Ordinance [Article 29]) would minimize noise from building operations, which would not be significant.

Compliance with applicable regulations regarding building insulation requirements and construction noise, sensitive receptors would not be adversely affected by construction noise. Construction noise that may result from the RHM District proposed by the Plan would not be significant. All impacts related to noise are considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

Based on baseline and future traffic projections developed as part of the transportation analysis, the Eastern Neighborhoods Rezoning and Area Plans EIR concluded that implementation of the Plans would increase noise levels by 1 dBA or less. In general, traffic noise increases of less than 3 dBA are not perceptible to most people, while a 5-dBA increase is readily noticeable. Permanent increases in ambient noise levels of less than 3 dBA are considered to be less than significant. Therefore, according to the Eastern Neighborhoods Rezoning and Area Plans EIR, implementation of the Plan will have a less than significant impact related to noise created by traffic generated by implementation of the Plan.

Noise measurements indicate noise levels exceed 60 dBA (Ldn) along almost all streets in the area and in areas where most new residential development is expected to occur with implementation of the proposed rezoning. Noise compatibility impacts will be potentially significant and a detailed noise analysis will be required (per the San Francisco General Plan noise guidelines) for residential development proposed in the Eastern Neighborhoods plan area to reduce these impacts to a less than significant level. However, because most new residential development that will be allowed within the plan area by the Eastern Neighborhoods Rezoning and Area Plans will be attached, multi-family residential units, most new residential development in the Eastern Neighborhoods plan area will be subject to Title 24 Noise Insulation requirements in addition to the San Francisco Noise Control Ordinance (Article 29). Therefore, according to the Eastern Neighborhoods Rezoning and Area Plans EIR, compliance with the state noise standards will ensure consistency with the General Plan noise standards for most new residential development in the plan area.

For residential development not subject to the California Noise Insulation Standards, the Eastern Neighborhoods Rezoning and Area Plans EIR concluded that traffic noise may potentially result in a significant effect if interior noise is not adequately reduced, consistent with the state standards for multi-family housing. With implementation of applicable mitigation measures, residential development not subject to the California Noise Insulation Standards will undergo appropriate noise analysis prior to approval and construction, thereby avoiding the potential significant impact of exposure to noise levels in excess of General Plan recommendations. Additional noise attenuation features may need to be incorporated into the building design where noise levels exceed 70 dBA (Ldn) to ensure that acceptable interior noise levels can be achieved.

Other noise-sensitive land uses, where the General Plan-recommended threshold for detailed noise reduction analysis is 65 dBA (Ldn), will be subject to this noise recommendation. Because such special-purpose uses are frequently subject to particular design and construction standards, the Eastern Neighborhoods Rezoning and Area Plans EIR concluded that consistency with the General Plan recommendations will occur as a matter of course in many instances. To avoid the potential significant impact of exposure of such uses to noise levels in excess of General Plan recommendations, mitigation measures that include each project undergo appropriate noise analysis prior to approval and construction will ensure that impacts are minimized. Furthermore, mitigation will avoid potentially significant noise

impacts to other new development in the Eastern Neighborhoods plan area by ensuring appropriate noise analysis consistent with the General Plan noise guidelines for land use compatibility.

Because the Eastern Neighborhoods Rezoning and Area Plans will more clearly define areas intended for residential and PDR uses, the rezoning will tend to result, over time, in fewer land use conflicts between noise generators and residential and other more noise-sensitive uses. The Eastern Neighborhoods Rezoning and Area Plans will also create buffers between residential and non-residential areas. However, because the proposed rezoning will permit existing uses to remain where they are, existing PDR uses will remain, to a greater or lesser degree, in some areas newly zoned for mixed residential and other uses. Particularly in the short term, the Eastern Neighborhoods Rezoning and Area Plans will facilitate some residential development in proximity to a mix of uses including PDR uses that can generate operational noise, as well as other non-residential uses. Residential development in proximity to existing noisy uses may result in health effects associated with exposure to chronic high levels of environmental noise. Implementation of applicable mitigation measures will reduce the impact related to potential conflicts between existing noise-generating uses and new sensitive receptors. These mitigation measures include requiring evaluation of the noise environment around any site where a noise-sensitive use is proposed, as well as conflicts between new noise-generating uses and existing noise-sensitive uses. Therefore, impacts related to noise conflicts between uses will be less than significant. In conclusion, all impacts related to noise are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, the key potential noise impacts associated with implementation of the Market and Octavia Neighborhood Plan are transportation impacts from increasing thoroughfare traffic and construction-related impacts from building demolitions, excavations and new construction. Secondary impacts include noise impacts associated with changes in land use, i.e., fixed heating, ventilating or air-conditioning (HVAC) equipment or local noise-generating activities.

According to the Market and Octavia Neighborhood Plan EIR, the sound environment at most local thoroughfares will remain similar to future conditions without the Plan, except for Hayes Street between Octavia Boulevard and Gough Street, where the arterial will worsen from 65-70 dBA to 70-75 dBA due to a drop in LOS on Hayes Street. The impacts resulting from these noise level increases associated with the implementation of the Plan will be less than significant.

Implementation of the Market and Octavia Neighborhood Plan will introduce a variety of stationary sources of noise including electrical and mechanical air conditioning equipment, most of which will be located on rooftops. Existing ambient noise conditions within the Market and Octavia Neighborhood plan area will generally mask noise from on-site equipment. Noise levels from operation of equipment will result in an increase of ambient noise levels that is considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Exterior noise levels may increase and result in an associated interior noise level increase. According to the Market and Octavia Neighborhood Plan EIR, these increases will not be of a magnitude to substantially alter the exterior noise environment and will not cause a significant impact. As the interior noise levels will be about 15 dBA less than the exterior noise levels, there will not be significant impacts on the interior noise levels either. Therefore noise increases at the potential housing locations are not considered to be a significant impact under the Market and Octavia Neighborhood Plan EIR.

With required Title 24 measures, redevelopment of the Central Freeway parcels, which is proposed by the Market and Octavia Neighborhood Plan, will result in a less than significant impact. Public street improvements will also result in a less than significant impact due to relatively high existing ambient noise levels. According to the Market and Octavia Neighborhood Plan EIR, open space improvements, which will introduce new sensitive noise receptors, will also result in a less than significant impact because noise levels near these open space areas are not projected to increase above existing levels.

Construction activities in the Market and Octavia Neighborhood plan area will be conducted in compliance with the San Francisco Noise Ordinance (Article 29, San Francisco Police Code). Project demolition and construction resulting from implementing the Market and Octavia Neighborhood Plan will comply with the Noise Ordinance, which will reduce construction impacts to a less than significant level.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to noise due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential noise impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to noise and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to result in exposure to noise in excessive levels, exposure to excessive groundborne vibration or noise, substantial increase in permanent noise levels, substantial increase in temporary or periodic noise levels, excessive noise levels due to public or private airport proximity, or substantially affect existing noise levels would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon

Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to noise. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to noise would be less than significant.

Cumulative Impacts

The geographic context for cumulative noise impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to noise. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to noise. The contribution of potential impacts from the proposed project to the cumulative noise impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

H. AIR QUALITY

INTRODUCTION

This section addresses potential project impacts related to the applicable air quality plan, air quality standards, criteria pollutants, sensitive receptors, and objectionable odors.

ENVIRONMENTAL SETTING

Applicable Plans and Regulations

Federal, state, and local laws and regulations form the foundation for controlling air pollution. The federal Clean Air Act, including amendments of 1990, and the California Clean Air Act of 1988, specify that federal and state regulatory agencies set upper limits on the airborne concentrations of six criteria air pollutants that are pervasive in urban environments.¹ National Ambient Air Quality Standards exist for ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter and lead. Reactive organic gases (ROG) and NO_x are also regulated as precursor contaminants that react in the atmosphere to form ozone. Inhalable particulate matter 10 microns or smaller in diameter (PM₁₀) is also regulated.

California has adopted more stringent state ambient air quality standards for most of the criteria air pollutants. In addition, California has established state ambient air quality standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. Because of the unique meteorological problems in the state, there is a considerable difference between state and federal standards currently in effect in California, as shown in Table V.H-1.

The ambient air quality standards are upper exposure limits intended to protect public health and welfare, and they incorporate an adequate margin of safety. They are designed to protect those segments of the public most susceptible to respiratory distress. These are considered sensitive receptors and include people with asthma and other respiratory conditions, the very young, the elderly, people weak from other illness, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure

¹ *These pollutants are called "criteria" pollutants because the United States EPA developed the National Ambient Air Quality Standards that apply to them based on specific public health and welfare criteria and the "criteria" documents that justified their regulation.*

**Table V.H-1
Ambient Air Quality Standards and Bay Area Attainment Status**

Pollutant	Averaging Time	State Standard	Bay Area Attainment Status for California Standard	Federal Primary Standard	Bay Area Attainment Status for Federal Standard	Major Pollutant Sources
Ozone	8 Hour	0.07 ppm	Unclassified	0.08 ppm	Non-Attainment	Motor vehicles. Other mobile sources, combustion, industrial and commercial processes
	1-Hour	0.09 ppm	Non-Attainment	---	---	
Carbon Monoxide	8-Hour	9.0 ppm	Attainment	9 ppm	Attainment	Internal combustion engines, primarily gasoline-powered motor vehicles
	1-Hour	20 ppm	Attainment	35 ppm	Attainment	
Nitrogen Dioxide	Annual	---	---	.053 ppm	Attainment	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads
	Average 1-Hour	0.25 ppm	Attainment	---	---	
Sulfur Dioxide	Annual Average	---	---	0.03 ppm	Attainment	Fuel combustion, chemical plants, sulfur recovery plants and metal processing
	24-Hour	0.04 ppm	Attainment	0.14 ppm	Attainment	
	1-Hour	0.25 ppm	Attainment	---	---	
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 ug/m3	Non-Attainment	---	---	Dust- and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays)
	24-Hour	50 ug/m3	Non-Attainment	150 ug/m3	Unclassified	
Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12 ug/m3	Non-Attainment	15 ug/m3	Attainment	Same as above
	24-Hour	---	---	35 ug/m3	Unclassified	
Lead	Calendar Quarter	---	---	1.5 ug/m3	Attainment	Lead smelters, battery manufacturing & recycling facilities
	30 Day Average	1.5 ug/m3	Attainment	---	---	

Note:
ppm=parts per million; and ug/m3=micrograms per cubic meter
Source: BAAQMD, 2007 (http://www.baaqmd.gov/pln/air_quality/ambient_air_quality.htm)

to air pollution levels somewhat above the ambient air quality standards before adverse health effects become evident.

Air Quality Management Planning

The federal Clean Air Act, as amended, and the California Clean Air Act provide the legal framework for attaining and maintaining healthful air quality as given by the ambient air quality standards. Both the federal and state acts require that the California Air Resources Board (CARB) designate as “nonattainment areas” portions of the state where federal or state ambient air quality standards are not met, as presented in Table V.H-1. The Bay Area is currently designated “nonattainment” for state one-hour and national eight-hour ozone standards and for the state PM₁₀ and PM_{2.5} standards. The Bay Area is in “attainment” or “unclassified” with respect to the other ambient air quality standards. Where a pollutant exceeds standards, air quality management plans must be formulated that demonstrate how the standards will be achieved. These laws also provide the basis for the implementing agencies to develop mobile and stationary source performance standards.

The 1977 Clean Air Act Amendments require that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards specified in the Clean Air Act. The 1988 California Clean Air Act also requires development of air quality plans and strategies to meet state air quality standards in areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM standards). Maintenance plans are required for areas that have achieved attainment status in order to ensure continued attainment. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans.

The BAAQMD is primarily responsible for planning, implementing, and enforcing the federal and state ambient standards in the Bay Area. The BAAQMD prepares air quality plans for the Bay Area with the cooperation of the MTC and ABAG. Environmental Protection Agency (EPA) approval of the *1982 Bay Area Air Quality Plan* (referred to as the *1982 Plan*) indicated how the BAAQMD will implement federal air quality requirements and resulted in the *1982 Plan* being incorporated into the State Implementation Plan. The region’s *State Implementation Plan* is a compilation of plan components and air pollution control regulations that, when taken together, are designed to enable the region to attain and maintain the federal standards. Along with the BAAQMD, the MTC and ABAG also contribute to the *State Implementation Plan*.

The BAAQMD updated the *1982 Plan* and adopted the *Bay Area ‘91 Clean Air Plan* to implement the requirements of the California Clean Air Act of 1988. As required by the California Clean Air Act and subsequent 1992 amendments, the BAAQMD also prepared the *1994 Clean Air Plan Update*, the *Bay Area ‘97 Clean Air Plan*, and the *Bay Area 2000 Clean Air Plan*.

Because the state ozone standard and the state PM₁₀ standard were exceeded (violated) in the region, the BAAQMD adopted the *2000 Clean Air Plan* to meet the state ozone standard. They submitted it on December 20, 2000 to CARB. The *2000 Clean Air Plan* includes a control strategy review to ensure that the plan continues to include “all feasible measures” to reduce ozone. No state plan is required to meet state PM₁₀ measures.

In 1998, the Bay Area was redesignated as nonattainment for the federal ozone standards. Under the EPA’s direction, the BAAQMD prepared and submitted the *Bay Area Ozone Attainment Plan* in June 1999 (referred to as the *1999 Plan*) as a revision to the *State Implementation Plan*. The EPA partially rejected the *1999 Plan*, disapproving the ozone attainment assessment, consistency of regional transportation plans and programs with air quality attainment plans, and the Reasonably Available Control Measure demonstration. In response to EPA’s disapproval of the *1999 Plan*, the BAAQMD, MTC, and ABAG prepared a Bay Area 2001 Ozone Attainment Plan (Final Plan) in June 2001. Prior to its submittal to the EPA, CARB initially rejected this *Final Plan*. Addenda to this plan were presented to CARB in October 2001, approved, and submitted to the EPA for approval of the *Final Plan*. On February 14, 2002, EPA determined that the motor vehicle emission budgets in the *Final Plan* were adequate for conformity purposes. In July 2003, EPA signed a rulemaking that proposed approving the *Final Plan* and made an interim final determination that the *Final Plan* corrected deficiencies identified in the *1999 Plan*.

Currently, there are three plans for the Bay Area:

- The 2001 Ozone Attainment Plan for the One-Hour National Ozone Standard (ABAG, 2001) developed to meet federal ozone air quality planning requirements (discussed in the preceding paragraph);
- The adopted Bay Area 2005 Ozone Strategy (BAAQMD, 2006) developed to meet the planning requirements related to the state ozone standard; and
- The 1996 Carbon Monoxide Redesignation Request and Maintenance Plan for Ten Federal Planning Areas, developed by the air districts with jurisdiction over the ten planning areas including the BAAQMD to ensure continued attainment of the federal carbon monoxide standard. In June 1998, the EPA approved this plan and designated the ten areas as attainment. The maintenance plan was revised most recently in 2004.

Following three years of low ozone levels (2001, 2002 and 2003), in October 2003, EPA proposed a finding that the Bay Area had attained the national one hour standard and that certain elements of the *2001 Plan* were no longer required (attainment demonstration, contingency measures and reasonable further progress). In April 2004, EPA made final the finding that the Bay Area had attained the one-hour standard and approved the remaining applicable elements of the *2001 Plan* (emission inventory; control measure commitments; motor vehicle emission budgets; reasonably available control measures; and commitments to further study measures).

EPA recently transitioned from the national one-hour standard to a more health-protective eight-hour standard. In April 2004, EPA designated regions for the new national eight-hour standard. Defined as “concentration based,” the new national ozone standard is set at 0.08 parts per million averaged over eight hours. The new national eight-hour standard is considered to be more health protective because it protects against health effects that occur with longer exposure to lower ozone concentrations.

In April 2004, EPA designated regions as attainment and nonattainment areas for the eight-hour standard. These designations took effect on June 15, 2004. EPA formally designated the Bay Area as a nonattainment area for the national eight-hour ozone standard, and classified the region as “marginal” according to five classes of nonattainment areas for ozone, which range from marginal to extreme. Marginal nonattainment areas must attain the national eight-hour ozone standard by June 15, 2007. While certain elements of Phase I of the eight-hour implementation rule are still undergoing legal challenge, EPA signed Phase 2 of the eight-hour implementation rule on November 9, 2005. It is not currently anticipated that marginal areas will be required to prepare attainment demonstrations for the eight-hour standard. Other planning elements may be required. The Bay Area plans to address all requirements of the national eight-hour standard in subsequent documents.

For state air quality planning purposes, the Bay Area is classified as a “serious” non-attainment area for ozone (eight-hour standard). The “serious” classification triggers various plan submittal requirements and transportation performance standards. One such requirement is that the Bay Area update the CAP every three years to reflect progress in meeting the air quality standards and to incorporate new information regarding the feasibility of control measures and new emission inventory data. The Bay Area’s record of progress in implementing previous measures must also be reviewed. On January 4, 2006, the BAAQMD adopted the most recent revision to the CAP the *Bay Area 2005 Ozone Strategy (2005 Ozone Strategy)*. The control strategy for the *2005 Ozone Strategy* is to implement all feasible measures on an expeditious schedule in order to reduce emissions of ozone precursors and consequently reduce ozone levels in the Bay Area and reduce transport to downwind regions.

In April 2005, CARB established a new eight-hour average ozone standard of 0.070 ppm. The new standard took effect in 2006. CARB is currently working on implementation guidance for the new standard. The one-hour state standard has been retained. The San Francisco Bay Area has not attained the state eight-hour standards, and will be taking action as necessary to address those standards as appropriate once the planning requirements have been established.

The *State Implementation Plan* measures for reducing emissions of reactive organic compounds and nitrogen oxides affect all source categories. Emissions limitations are imposed upon sources of air pollutants by rules and regulations promulgated by the federal, state, or local agencies. Mobile sources of air pollutants are largely controlled by federal and state agencies through emission performance standards and fuel formulation requirements. The BAAQMD regulates stationary sources through its permitting and compliance programs. The BAAQMD is responsible for implementing stationary source performance standards and other requirements of federal and state laws.

Local environmental plans and policies also recognize community goals for air quality. The *General Plan* includes the 1997 Air Quality Element.² The objectives specified by the City include the following:

- Objective 2: Reduce mobile sources of air pollution through implementation of the Transportation Element of the General Plan.
- Objective 3: Decrease the air quality impacts of development by coordination of land use and transportation decisions.
- Objective 5: Minimize particulate matter emissions from road and construction sites.
- Objective 6: Link the positive effects of energy conservation and waste management to emission reductions.

Greenhouse Gases

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 a driving force for global climate change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the earth's climate caused by natural fluctuations and anthropogenic activities which alter the composition of the global atmosphere.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during demolition, construction and operational phases. The principal GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. (Ozone—not directly emitted, but formed from other gases—in the troposphere, the lowest level of the earth's atmosphere, also contributes to the retention of heat.) 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. Carbon dioxide is the “reference gas” for climate change, meaning that emissions of GHGs are typically reported in “carbon dioxide-equivalent” measures (CO₂E). 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, with much greater heat-absorption potential than carbon dioxide, include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes. There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the 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, more large forest fires, and

² *City and County of San Francisco Planning Department, Air Quality—An Element of the General Plan of the City and County of San Francisco, July 1997, updated in 2000.*

more drought years.³ 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.

The California Energy Commission (CEC) estimated that in 2004 California produced 500 million gross metric tons (about 550 million U.S. tons) of carbon dioxide equivalent GHG emissions.⁴ The CEC 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 23 percent and industrial sources at 13 percent.⁵ In the Bay Area, fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of the Bay Area's GHG emissions, accounting for just over half of the Bay Area's 85 million tons of GHG emissions in 2002. Industrial and commercial sources were the second largest contributors of GHG emissions with about one-fourth of total emissions. Domestic sources (e.g., home water heaters, furnaces, etc.) account for about 11 percent of the Bay Area's GHG emissions, followed by power plants at 7 percent. Oil refining currently accounts for approximately 6 percent of the total Bay Area GHG emissions.⁶

Statewide Actions

In 2005, in recognition of California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of GHG would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.⁷

In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), which requires the California Air Resources Board (CARB) 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).

³ California Air Resources Board (ARB), 2006a. *Climate Change website* (<http://www.arb.ca.gov/cc/ccei/meetings/120106workshop/intropres12106.pdf>) accessed December 4, 2007.

⁴ 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.

⁵ California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report*, publication # CEC-600-2006-013-SF, December 22, 2006; and January 23, 2007 update to that report. Available on the internet at: <http://www.arb.ca.gov/ei/emissiondata.htm>.

⁶ BAAQMD, *Source Inventory of Bay Area Greenhouse Gas Emissions: Base Year 2005*, December 2008. Available on the internet at: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Emission-Inventory-and-Air-Quality-Related/~media/A06B5C918A5F413B9BDBE0B63AC2340E.ashx>.

⁷ California Air Resources Board (CARB), *Climate Change Scoping Plan: A Framework for Change*, December 2008. Available on the internet at: <http://www.climatechange.ca.gov/index.php>. Accessed July 7, 2009.

AB 32 establishes a timetable for the CARB to adopt emission limits, rules, and regulations designed to achieve the intent of the Act. CARB staff has prepared a scoping plan to meet the 2020 greenhouse gas reduction limits outlined in AB 32. In order to meet these goals, California must reduce its greenhouse gases by 30 percent below projected 2020 business as usual emissions levels, or about 10 percent from today's levels (2008). In December 2008, CARB adopted a Scoping Plan that estimates a reduction of 174 million metric tons of CO₂ equivalents (MMTCO₂E). Approximately one-third of the emissions reductions strategies fall within the transportation sector and include the following: California Light-Duty Vehicle GHG standards, the Low Carbon Fuel Standard, Heavy-Duty Vehicle GHG emission reductions and energy efficiency, and medium and heavy-duty vehicle hybridization, high speed rail, and efficiency improvements in goods movement. These measures are expected to reduce GHG emissions by 62.3 MMTCO₂E. Emissions from the electricity sector are expected to reduce another 49.7 MMTCO₂E. Reductions from the electricity sector include building and appliance energy efficiency and conservation, increased combined heat and power, solar water heating (AB 1470), the renewable energy portfolio standard (33% renewable energy by 2020), and the existing million solar roofs program. Other reductions are expected from industrial sources, agriculture, forestry, recycling and waste, water, and emissions reductions from cap-and-trade programs. Regional GHG targets are expected to yield a reduction of 5 MMTCO₂E.⁸ Measures that could become effective during implementation pertain to construction-related equipment and building and appliance energy efficiency. Some proposed measures will 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). Applicable measures that are ultimately adopted will become effective during implementation of proposed project and the proposed project could be subject to these requirements, depending on the proposed project's timeline.

Local Actions

San Francisco has a history of environmental protection policies and programs aimed at improving the quality of life for San Francisco's residents and reducing impacts on the environment. The following plans, policies and legislation demonstrate San Francisco's continued commitment to environmental protection.

Transit First Policy. In 1973 San Francisco instituted the Transit First Policy which added Section 16.102 to the City Charter with the goal of reducing the City's reliance on freeways and meeting transportation needs by emphasizing mass transportation. The Transit First Policy gives priority to public transit investments; adopts street capacity and parking policies to discourage increased automobile traffic; and encourages the use of transit, bicycling and walking rather than use of single-occupant vehicles.

⁸ *Ibid.*

San Francisco Sustainability Plan. In July 1997 the Board of Supervisors approved the Sustainability Plan for the City of San Francisco establishing sustainable development as a fundamental goal of municipal public policy.

The Electricity Resource Plan (Revised December 2002). San Francisco adopted the Electricity Resource Plan to help address growing environmental health concerns in San Francisco's southeast community, home of two power plants. The plan presents a framework for assuring a reliable, affordable, and renewable source of energy for the future of San Francisco.

The Climate Action Plan for San Francisco. In February 2002, the San Francisco Board of Supervisors passed the Greenhouse Gas Emissions Reduction Resolution (Number 158-02) committing the City and County of San Francisco to a GHG emissions reduction goal of 20 percent below 1990 levels by the year 2012. In September 2004, the San Francisco Department of the Environment and the Public Utilities Commission published the Climate Action Plan for San Francisco: Local Actions to Reduce Greenhouse Gas Emissions.⁹ The Climate Action Plan provides the context of climate change in San Francisco and examines strategies to meet the 20 percent greenhouse gas reduction target. Although the Board of Supervisors has not formally committed the City to perform the actions addressed in the Plan, and many of the actions require further development and commitment of resources, the Plan serves as a blueprint for GHG emission reductions, and several actions have been implemented or are now in progress.

San Francisco Municipal Transportation Agency's Zero Emissions 2020 Plan. The SFMTA's Zero Emissions 2020 plan focuses on the purchase of cleaner transit buses including hybrid diesel-electric buses. Under this plan hybrid buses will replace the oldest diesel buses, some dating back to 1988. The hybrid buses emit 95 percent less particle matter (PM, or soot) than the buses they replace, they produce 40% less oxides of nitrogen (NO_x), and they reduce greenhouse gases by 30 percent.

LEED® Silver for Municipal Buildings. In 2004, the City amended Chapter 7 of the Environment code, requiring all new municipal construction and major renovation projects to achieve LEED® Silver Certification from the US Green Building Council.

Zero Waste. In 2004, the City of San Francisco committed to a goal of diverting 75 percent of its waste from landfills by 2010, with the ultimate goal of zero waste by 2020. San Francisco currently recovers 69 percent of discarded material.

Construction and Demolition Debris Recovery Ordinance. In 2006 the City of San Francisco adopted Ordinance No. 27-06, requiring all construction and demolition debris to be transported to a registered facility that can divert a minimum of 65 percent of the material from landfills. This ordinance applies to all construction, demolition and remodeling projects within the City.

⁹ *San Francisco Department of the Environment and San Francisco Public Utilities Commission, Climate Action Plan for San Francisco, Local Actions to Reduce Greenhouse Emissions, September 2004.*

Greenhouse Gas Reduction Ordinance. In May 2008, the City of San Francisco adopted an ordinance amending the San Francisco Environment Code to establish City GHG emission targets and departmental action plans, to authorize the Department of the Environment to coordinate efforts to meet these targets, and to make environmental findings. The ordinance establishes the following GHG emission reduction limits for San Francisco and the target dates to achieve them:

- Determine 1990 City GHG emissions by 2008, 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 ordinance also specifies requirements for City departments to prepare departmental Climate Action Plans that assess, and report to the Department of the Environment, GHG emissions associated with their department's activities and activities regulated by them, and prepare recommendations to reduce emissions. As part of this, the San Francisco Planning Department is required to: (1) update and amend the City's applicable General Plan elements to include the emissions reduction limits set forth in this ordinance and policies to achieve those targets; (2) consider a project's impact on the City's GHG reduction limits specified in this ordinance as part of its review under CEQA; and (3) work with other City departments to enhance the "transit first" policy to encourage a shift to sustainable modes of transportation thereby reducing emissions and helping to achieve the targets set forth by this ordinance.

Go Solar SF. On July 1, 2008, the SFPUC launched their "GoSolarSF" program to San Francisco's businesses and residents, offering incentives in the form of a rebate program that could pay for approximately half the cost of installation of a solar power system, and more to those qualifying as low-income residents.

City of San Francisco's Green Building Ordinance. On August 4, 2008, Mayor Gavin Newsom signed into law San Francisco's Green Building Ordinance for newly constructed residential and commercial buildings and renovations to existing buildings. The ordinance specifically requires newly constructed commercial buildings over 5,000 square feet (sq. ft.), residential buildings over 75 feet in height, and renovations on buildings over 25,000 sq. ft. to be subject to an unprecedented level of LEED® and green building certifications, which makes San Francisco the city with the most stringent green building requirements in the nation. Cumulative benefits of this ordinance includes reducing CO2 emissions by 60,000 tons, saving 220,000 megawatt hours of power, saving 100 million gallons of drinking water, reducing waste and storm water by 90 million gallons of water, reducing construction and demolition

waste by 700 million pounds, increasing the valuations of recycled materials by \$200 million, reducing automobile trips by 540,000, and increasing green power generation by 37,000 megawatt hours.¹⁰

The Green Building Ordinance also continues San Francisco's efforts to reduce the City's greenhouse gas emissions to 20 percent below 1990 levels by the year 2012, a goal outlined in the City's 2004 Climate Action Plan. In addition, by reducing San Francisco's emissions, this ordinance also furthers the State's efforts to reduce greenhouse gas emissions statewide as mandated by the California Global Warming Solutions Act of 2006.

The City has also passed ordinances to reduce waste from retail and commercial operations. Ordinance 295-06, the Food Waste Reduction Ordinance, prohibits the use of polystyrene foam disposable food service ware and requires biodegradable/compostable or recyclable food service ware by restaurants, retail food vendors, City Departments and City contractors. Ordinance 81-07, the Plastic Bag Reduction Ordinance, requires stores located within the City and County of San Francisco to use compostable plastic, recyclable paper and/or reusable checkout bags.

The San Francisco Planning Department and Department of Building Inspection have also developed a streamlining process for Solar Photovoltaic (PV) Permits and priority permitting mechanisms for projects pursuing LEED® Gold Certification.

The City's Planning Code reflects the latest smart growth policies and includes: electric vehicle refueling stations in city parking garages, bicycle storage facilities for commercial and office buildings, and zoning that is supportive of high density mixed-use infill development. The City's more recent area plans, such as Rincon Hill and the Market and Octavia Area Plan, provide transit-oriented development policies. At the same time there is also a community-wide focus on ensuring San Francisco's neighborhoods as "livable" neighborhoods, including the Better Streets Plan that would improve streetscape policies throughout the City, the Transit Effectiveness Plan, that aims to improve transit service, and the Bicycle Plan, all of which promote alternative transportation options. The City also provides incentives to City employees to use alternative commute modes and the City recently introduced legislation that would require almost all employers to have comparable programs.

Each of the policies and ordinances discussed above include measures that would decrease the amount of greenhouse gases emitted into the atmosphere and decrease San Francisco's overall contribution to climate change.

Air Quality Conditions

The San Francisco Bay Area's regional meteorological conditions are cool and dry in the summers and mild and moderately wet in the winters. A daytime sea breeze provides fresh air to the Bay Area, but also

¹⁰ These findings are contained within the final Green Building Ordinance, signed by the Mayor August 4, 2008.

tends to cause temperature inversions by positioning cool surface air underneath warmer upper-air. The inversions limit vertical motion of pollution and cause pollution potential to be the highest in the sheltered valleys throughout the region and in the subregions that are not directly affected by the marine air entering through the Golden Gate.¹¹

The nine-county San Francisco Bay Area Air Basin has a history of recorded violations of federal and state ambient air quality standards for ozone, carbon monoxide, and inhalable particulate matter. Since the early 1970s, the Bay Area has made progress toward controlling these pollutants. The progress has led the area to attainment of all state and federal standards except those for ozone and PM₁₀. The Bay Area is an ozone nonattainment area for state and federal purposes. Although the Bay Area does not meet the state standard for PM₁₀, it meets the federal standard.

The criteria air pollutants for which national and state standards have been promulgated (and that are most relevant to air quality planning and regulation in the Bay Area) are ozone, fine suspended particulate matter, and carbon monoxide. Each of these is briefly described below.

- Ozone is a gas that is formed when ROGs and NO_x, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperature conditions are favorable to the formation of this pollutant.
- Fine Suspended Particulate Matter consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM₁₀, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM₁₀ is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- Carbon Monoxide is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and motor vehicles operating at slow speeds are the primary source of CO in the Bay Area, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

The BAAQMD operates air quality monitoring stations in San Francisco at 10 Arkansas Street (at the foot of Potrero Hill) and at 939 Ellis Street (near the Civic Center). The Ellis Street station monitors only carbon monoxide. Peak carbon monoxide concentrations observed at the Ellis Street station tend to be higher than those observed at Arkansas Street. Ozone, CO, and PM₁₀ data at the Arkansas Street station show the following:

¹¹ Bay Area Air Quality Management District, *BAAQMD CEQA Guidelines, Assessing the Air Quality Impacts of Projects and Plans*, April 1996, Revised December 1999, Appendix D.

- During the period of 2000 through 2006, the state and federal 1-hour and 8-hour ozone standards were not exceeded (violated) on any day at the Arkansas Street station.
- During the period of 2000 through 2004, the state 24-hour PM₁₀ standard was exceeded in no more than 10 percent of the samples per year, and the federal 24-hour standard was not exceeded at all in the period 2000-2006. The state 24-hour standard was not exceeded in 2005 but was exceeded in 2006. Similarly, the state annual average standard was not exceeded in the 2000-2001 period, but was exceeded each year from 2002-2006, while the federal annual average standard was not exceeded at all. The federal standards were not exceeded in the district.

The regional and local air quality data show that the region has made considerable progress toward meeting the state and federal standards. At this time, the region does not meet ozone standards, and violations of the state and federal standards for ozone continue to persist. Pollutants tend to be carried away from San Francisco into the more sheltered areas of the region and cause violations of the standards in those locations. In this manner, regional benefits would occur with efforts to control San Francisco's emissions.

The emission sources that currently exist in the project area are traffic-related. Emissions due to traffic congestion dominate the localized air quality within the project area. Existing land uses within the project area constitute minor sources of air emissions (e.g., water heaters, ventilation equipment, etc.) from residential, office, industrial, and commercial activity.

Land uses in the project area include mostly industrial, commercial, and residential uses. Motor vehicles are the primary source of pollutants in the area. Traffic-congested roadways and intersections have the potential to generate high localized levels of CO. Localized areas where ambient concentrations exceed national and/or state standards for CO are termed CO "hotspots." These hotspots can become a problem if people are exposed to the high concentrations for long periods of time (i.e., one hour or more when compared to the national and state one-hour standards and eight hours or more when compared with the national and state eight-hour standards). The national one-hour standard is 35.0 ppm, and the state one-hour standard is 20.0 ppm. The eight-hour national and state standards are both 9.0 ppm.

Sensitive Receptors

Land uses such as schools, children's day care centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions compared to commercial and industrial areas because people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality conditions. Residential uses occur throughout the project area. Recreational uses would also be considered sensitive compared to commercial and industrial areas due to

the greater exposure to ambient air quality conditions. Parks and open spaces uses occur throughout the project area but comprise only a very small proportion of the total area.

San Francisco Department of Public Health

The San Francisco Department of Public Health (DPH) has issued guidance for the identification and assessment of potential air quality hazards and methods for assessing the associated health risks.¹² Consistent with CARB guidance, DPH has identified that a potential public health hazard for sensitive land uses exists when such uses are located within a 150-meter (approximately 500-foot) radius of any boundary of a project site that experiences 100,000 vehicles per day. To this end, San Francisco added Article 38 of the San Francisco Health Code, approved November 25, 2008, which requires that, for new residential projects of 10 or more units located in proximity to high-traffic roadways, as mapped by DPH, an Air Quality Assessment be prepared to determine whether residents would be exposed to potentially unhealthful levels of PM_{2.5}. Through air quality modeling, an assessment is conducted to determine if the annual average concentration of PM_{2.5} from the roadway sources would exceed a concentration of 0.2 micrograms per cubic meter (annual average).¹³ If this standard is exceeded, the project sponsor must install a filtered air supply system, with high-efficiency filters, designed to remove at least 80 percent of ambient PM_{2.5} from habitable areas of residential units.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;

¹² San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 6, 2008, http://dphwww.sfdph.org/phes/publications/Mitigating_Roadway_AQLU_Conflicts.pdf, accessed September 8, 2009.

¹³ According to DPH, this threshold, or action level, of 0.2 micrograms per cubic meter represents about 8 – 10 percent of the range of ambient PM_{2.5} concentrations in San Francisco based on monitoring data, and is based on epidemiological research that indicates that such a concentration can result in an approximately 0.28 percent increase in non-injury mortality, or an increased mortality at a rate of approximately 20 “excess deaths” per year per one million population in San Francisco. “Excess deaths” (also referred to as premature mortality) refer to deaths that occur sooner than otherwise expected, absent the specific condition under evaluation; in this case, exposure to PM_{2.5}. (San Francisco Department of Public Health, Occupational and Environmental Health Section, Program on Health, Equity, and Sustainability, “Assessment and Mitigation of Air Pollutant Health Effects from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review, May 6, 2008. Twenty excess deaths per million based on San Francisco’s non-injury, non-homicide, non-suicide mortality rate of approximately 714 per 100,000. Although San Francisco’s population is less than one million, the presentation of excess deaths is commonly given as a rate per million population.)

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- 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);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Air quality impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

The Bayview Hunters Point Redevelopment Plan includes the implementation of plans, programs, and activities designed to stimulate land development and other improvements within the area. Based on the potential increases in population and future vehicle trips, the Bayview Hunters Point Redevelopment Plan EIR determined that the Plan will be consistent with the 2000 BAAQMD Clean Air Plan and the San Francisco General Plan. However, implementation of the Plan will result in additional construction and operational activities (e.g., traffic, stationary sources, etc) within the Bayview Hunters Point plan area, which may have potentially significant impacts on air quality. According to the Bayview Hunters Point Redevelopment Plan EIR, construction activities are considered to be less than significant because all construction projects will be required to follow BAAQMD’s mitigation measures outlined in the BAAQMD CEQA Guidelines.

TACs released from various operational activities, including stationary sources (e.g., boilers and emergency generators) and mobile sources (traffic increases) were evaluated in the Bayview Hunters Point Redevelopment Plan EIR. For stationary sources, BAAQMD requires facilities, including TAC generators, to obtain permits to operate, which may include a health risk assessment. These permits are submitted and approved on an individual basis, and must show that the facility and/or stationary source does not exceed the BAAQMD TAC risk standards. Project-related traffic increases at seven intersections will generate maximum roadside concentrations of approximately 5.0 parts per million of CO on a one-hour basis. The Bayview Hunters Point Redevelopment Plan EIR concluded that these concentrations will not violate federal or state CO standards. Therefore, potential operational impacts resulting from the Plan are considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

California law and BAAQMD rules also provide various mechanisms designed to protect sensitive receptors, including school siting procedures, BAAQMD permit procedures, BAAQMD review of TAC emissions, and provisions of the Hot Spots program, when a sensitive receptor is located within 500 meters (1,640 feet) of a source of TACs. According to the Bayview Hunters Point Redevelopment Plan EIR, without the ability to predict future TAC concentrations, and in the absence of specific standards of significance for risks from TACs, the significance of this potential impact is unknown.

Rincon Hill Plan EIR

The Rincon Hill Plan EIR addresses amendments to the Planning Code, Zoning Maps, and to the existing Rincon Hill Area Plan (an element of the San Francisco General Plan). Specifically, the Rincon Hill Plan EIR analyzes the physical changes in the environment based on the assumptions about future development and activity that may occur under the Rincon Hill Plan (within the project area).

Based on the Rincon Hill Plan EIR, implementation of the Rincon Hill Plan under any of the options analyzed in the area plan EIR will affect air quality through construction-related emissions, transportation-related vehicular exhaust emissions, and stationary source emissions. Construction-related emissions will be short-term and on a project-by-project basis, and will vary as each specific development project occurs under the Plan. Transportation-related vehicular exhaust emissions from operation of projects developed pursuant to the Rincon Hill Plan will be long-term and will result from traffic increases associated with the new development.

Construction activities will occur intermittently at different sites in the Rincon Hill plan area as development occurs. Although the related impacts at any one location will be temporary, construction of individual projects under the Rincon Hill Plan may cause adverse effects on the local air quality within the Rincon Hill plan area. Construction activities will generate substantial amounts of dust (including PM₁₀ and PM_{2.5}) and lesser amounts of other criteria air pollutants primarily from operation of heavy equipment, construction machinery, and construction worker automobile trips. Since the individual projects being undertaken within the Rincon Hill plan area will be required to implement the BAAQMD dust-control measures during construction activities, the potential air quality impacts associated with construction of the projects are considered to be less than significant under the Rincon Hill Plan EIR.

Development under the Rincon Hill Plan will result in increases in population and, to a lesser degree, employment and a concomitant increase in traffic and air pollution emissions. As discussed in the Rincon Hill Plan EIR, the proposed increases in population and traffic associated with the implementation of the Rincon Hill Plan will be consistent with population and vehicle use projections in the current *Clean Air Plan*. The Plan will also implement applicable transportation control measures identified in the *Clean Air Plan* and continue the implementation and enhancement of the Rincon Hill Plan policies aimed at reducing and/or limiting vehicle travel. According to the Rincon Hill Plan EIR, these policies and control measures will reduce the potential regional and local air quality impacts associated with implementation of the Rincon Hill Plan, resulting in a less than significant impact with regard to operational air quality.

Eastern Neighborhoods Rezoning and Area Plans EIR

As discussed in the Eastern Neighborhoods Rezoning and Area Plans EIR, the purpose of the Eastern Neighborhood Rezoning and Area Plans is to encourage new housing while preserving sufficient lands for necessary production distribution and repair (PDR) (generally, light industrial) businesses and activities. As such, the San Francisco Planning Department proposed changes in the Planning Code (zoning) controls, as well as amendments to the General Plan, for an approximately 2,200-acre area on the eastern side of San Francisco.

As stated in the Eastern Neighborhoods Rezoning and Area Plans EIR, the Eastern Neighborhoods Rezoning and Area Plans may result in increases in air pollution through increased generation of air pollutants, such as through increased vehicle travel and demand for energy, and by development of new transportation facilities that produce site-specific emissions. Also, new development may increase the population in proximity to pre-existing or new sources of air pollution, increasing exposure and hazard.

In accordance with the *BAAQMD CEQA Guidelines*, the Eastern Neighborhoods Rezoning and Area Plans EIR judged the significance of the overall impact of operational emissions of criteria air pollutants generated as a result of the proposed Eastern Neighborhood Rezoning and Area Plans on the basis of the consistency of the proposed project with the *Bay Area 2005 Ozone Strategy*, which is the most recently adopted regional air quality plan. (Individual development projects undertaken in the future pursuant to the new zoning and area plans would be subject to a significance determination based on the BAAQMD's quantitative thresholds for individual projects at the time of the Eastern Neighborhoods Rezoning and Area Plans EIR preparation.) According to the Eastern Neighborhoods Rezoning and Area Plans EIR, since growth rates anticipated under the Eastern Neighborhoods Rezoning and Area Plans will not exceed ABAG's projected growth rate for San Francisco or for the Eastern Neighborhoods, project implementation under all options will not result in a significant impact on regional air quality planning efforts.

The number of daily vehicle trips in the Eastern Neighborhoods plan area will increase between 2000 and 2025 by approximately 15 percent. Because the number of daily vehicle trips will increase at a lesser rate than will the population, this suggests that the Eastern Neighborhoods Rezoning and Area Plans will be consistent with the goal of the *2005 Ozone Strategy* to reduce vehicle usage, relative to population, and thereby reduce vehicle miles traveled. Mitigation measures defined in the Eastern Neighborhoods Rezoning and Area Plans EIR will ensure that implementation of the Plans will result in a less than significant impacts related to diesel particulate matter, toxic air contaminant exposure, and other health effects.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, implementing the Market and Octavia Neighborhood Plan in the next 20 years will result in about 4,440 additional residential units and 7,620 new residents or an average annual increase of about 380 residents. This increase will contribute less than

0.01 percent to the 0.9 percent annual growth rate for the Bay Area region. The growth associated with the Market and Octavia Neighborhood Plan is already accounted for as part of the overall growth expected to occur in San Francisco. The Market and Octavia Neighborhood Plan will focus growth in an area that is conveniently located to transit and City services. As a result, the small contribution of the Market and Octavia Neighborhood growth to overall regional growth will not be expected to be considerable and will be in conformity with the *Clean Air Plan*. Therefore, according to the area plan EIR, the Plan will not have a significant impact on air quality related to conformance.

Development under the Market and Octavia Neighborhood will be consistent with the San Francisco General Plan, which provides development polices and guidelines designed to provide for protection of the public from nuisance odors or exposure to toxic air emissions. Conformance with the General Plan policies will ensure that the Market and Octavia Neighborhood Plan will not result in significant impacts due to odors or toxins. Increases in residential density may result in more vehicle trips and redesign of roads may result in increased traffic congestion, which may cause increased concentrations of carbon monoxide at major intersections. Carbon monoxide projections in the Market and Octavia Neighborhood Plan EIR suggest that the 8-hour average carbon monoxide concentration at five intersections currently violate the state and federal carbon monoxide standards. However, the predicted carbon monoxide concentrations at these intersections in 2025 with the Market and Octavia Neighborhood Plan implementation will be below both the State and national average 8-hour standard and the average 1-hour standard, primarily due to the lower vehicle emissions in future years due to various state and federal programs. Therefore, the Market and Octavia Neighborhood Plan will not have a significant impact on the carbon monoxide concentrations at the intersections. According to the Market and Octavia Neighborhood Plan EIR, all construction impacts associated with future development in the Market and Octavia Neighborhood will be mitigated to less than significant levels by implementing particulate emission controls as recommended by BAAQMD.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to air quality due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential air quality impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to air quality and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to conflict with the applicable air quality plan, violate

air quality standards, result in a considerable increase of any criteria pollutant in a non-attainment region, expose sensitive receptors to substantial pollutant concentrations, or create objectionable odors that affect a substantial number of people would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to air quality. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to air quality would be less than significant.

Cumulative Impacts

Criteria Pollutants and Toxic Air Contaminants (TACs)

Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the San Francisco Bay Area could contribute to impacts related to air quality. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to air quality.

GHGs

Although neither BAAQMD or any other agency has adopted significance criteria for evaluating a project's contribution to climate change, the Office of Planning and Research (OPR) has asked CARB to "recommend a method for setting thresholds of significance to encourage consistency and uniformity in the CEQA analysis of GHG emissions" throughout the state because OPR has recognized that "the global nature of climate change warrants investigation of a statewide threshold for GHG emissions."¹⁴ In the interim, on June 19, 2008 OPR released a Technical Advisory for addressing climate change through CEQA review. OPR's technical advisory encourages public agencies to adopt thresholds of significance, but notes that public agencies are not required to do so.

Until a statewide threshold has been adopted, the San Francisco Planning Department analyzes a proposed project's contribution to climate change against the following significance criteria:

- 1) Does the project conflict with the state goal of reducing GHG emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32 (California Global Warming Solutions Act of 2006), such that the project's GHG emissions would result in a substantial contribution to global climate change.
- 2) Does the proposed project conflict with San Francisco's Climate Action Plan such that it would impede implementation of the local greenhouse gas reduction goals established by San Francisco's Greenhouse Gas Reduction Ordinance.

The 2020 GHG emissions limit for California, as adopted by CARB in December of 2007 is approximately 427 MMTCO₂-eq. Since the EZ is an overlay designation, it would not result in direct greenhouse gas emissions. Therefore, greenhouse gas emissions will be quantified on a project-by-project basis for all future development resulting from the implementation of the EZ (as each future project is subject to an independent CEQA review). Each project's annual greenhouse gas contribution will be compared to the 2020 GHG emissions limit for California (%), and it will be determined if each proposed project would generate sufficient emissions of GHGs to contribute considerably to the cumulative effects of GHG emissions, such that it would impair the state's ability to implement AB32 or conflict with San Francisco's local actions to reduce GHG emissions.

OPR's guidance states that, "Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation

¹⁵ Office of Planning and Research. *Technical Advisory- CEQA and Climate Change: Addressing Climate Change Governor's 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 July 7, 2009.*

programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project”. And, “In determining whether a proposed project’s emissions are cumulatively considerable, the lead agency must consider the impact of the project when viewed in connection with the effects of “past, current and probable future projects.”

As discussed previously, San Francisco has been actively pursuing cleaner energy, transportation and solid waste policies. In an independent review of San Francisco’s community wide emissions it was reported that San Francisco has achieved a 5 percent reduction in communitywide greenhouse gas emissions below the Kyoto Protocol 1990 baseline levels. The 1997 Kyoto Protocol sets a greenhouse gas reduction target of 7 percent below 1990 levels by 2012. The "community-wide inventory" includes greenhouse gas emissions generated by San Francisco by residents, businesses, and commuters, as well as municipal operations. The inventory also includes emissions from both transportation sources and from building energy sources.

Probable future greenhouse gas reductions will be realized by implementation of San Francisco’s recently approved Green Building Ordinance. Additionally, the recommendations outlined in the Draft AB 32 Scoping Plan will likely realize major reductions in vehicle emissions.

Given that: (1) the proposed project would not contribute significantly to global climate change such that it would impede the State’s ability to meet its greenhouse gas reduction targets under AB 32, or impede San Francisco’s ability to meet its greenhouse gas reduction targets under the Greenhouse Gas Reduction Ordinance; (2) San Francisco has implemented programs to reduce greenhouse gas emissions specific to new construction and renovations of residential and commercial developments; (3) San Francisco’s sustainable policies have resulted in the measured success of reduced greenhouse gas emissions levels, and (4) current and probable future state and local greenhouse gas reduction measures will continue to reduce a project’s contribution to climate change, the proposed project would not contribute significantly, either individually or cumulatively, to global climate change.

Therefore, based on the information above, the contribution of potential impacts from the proposed project to the cumulative air quality impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

Although neither the BAAQMD or any other agency has adopted significance criteria for evaluating a project’s contribution to climate change, the Office of Planning and Research (OPR) has asked the California Air Resources Board to “recommend a method for setting thresholds of significance to encourage consistency and uniformity in the CEQA analysis of GHG emissions” throughout the state because OPR has recognized that “the global nature of climate change warrants investigation of a statewide threshold for GHG emissions.”¹⁵ In the interim, on June 19, 2008 OPR released a Technical

¹⁵ Office of Planning and Research. *Technical Advisory- CEQA and Climate Change: Addressing Climate Change Governor’s through California Environmental Quality Act (CEQA) Review. June 19, 2008. Available at the*

Advisory for addressing climate change through CEQA review. OPR's technical advisory offers informal guidance on the steps that lead agencies should take to address climate changes in their CEQA documents, in the absence of statewide thresholds. OPR will develop, and the California Resources Agency will certify and adopt amendments to the CEQA guidelines on or before January 1, 2010, pursuant to Senate Bill 97.

The informal guidelines in OPR's technical advisory provide the basis for determining proposed project's contribution of greenhouse gas emissions and the project's contribution to global climate change. In the absence of adopted statewide thresholds, OPR recommends the following approach for analyzing greenhouse gas emissions:

1. Identify and quantify the project's greenhouse gas emissions;
2. Assess the significance of the impact on climate change; and
3. If the impact is found to be significant, identify alternatives and/ or mitigation measures that would reduce the impact to less than significant levels.

The following analysis is based on OPR's recommended approach for determining a project's contribution to and impact on climate change.

Identifying and quantifying a project's greenhouse gas emissions. OPR's technical advisory states that "the most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide." State law defines GHG 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, however, the GHG calculation does include emissions from CO₂, N₂O, and CH₄, as recommended by OPR. The informal guidelines also advise that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water usage and construction activities. The calculation presented below includes construction emissions and annual CO₂-eq GHG emissions from increased vehicular traffic, energy consumption, as well as estimated GHG emissions from solid waste disposal. While San Francisco's population and businesses are expected to increase, overall projected water demand for San Francisco in 2030 is expected to decrease from current water demand due to improvements in plumbing code requirements and additional water conservation measures implemented by the SFPUC.¹⁶ Given the anticipated degree of water conservation, GHG emissions

Office of Planning and Research's website at: <http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>. Accessed July 7, 2009.

¹⁶ *The San Francisco Public Utilities Commission's (SFPUC) City and County of San Francisco Retail Water Demands and Conservation Potential, November 2004, documents the current and projected water demand given population and housing projections from Citywide Planning. This document is available at the SFPUC's website at: http://sfwater.org/detail.cfm/MC_ID/13/MSC_ID/165/C_ID/2281. Accessed 07/28/2008. The analysis provides projections of future (2030) water demand given anticipated water conservation measures from plumbing code changes, measures the SFPUC currently implements, and other measures the SFPUC*

associated with the transport and treatment of water usage would similarly decrease through 2030, and therefore increased GHG emissions from water usage is not expected.

Assessing the significance of the impact on climate change. OPR encourages public agencies to adopt thresholds of significance, but notes that public agencies are not required to do so. Until a statewide threshold has been adopted, the Department analyzes a proposed project's contribution to climate change against the following significance criteria:

1. Does the project conflict with the state goal of reducing GHG emissions in California to 1990 levels by 2020, as set forth by the timetable established in AB 32 (California Global Warming Solutions Act of 2006), such that the project's GHG emissions would result in a substantial contribution to global climate change? AND
2. Does the proposed project conflict with San Francisco's Climate Action Plan such that it would impede implementation of the local greenhouse gas reduction goals established by San Francisco's Greenhouse Gas Reduction Ordinance?

The 2020 GHG emissions limit for California, as adopted by CARB in December of 2007 is approximately 427 MMTCO₂E. The proposed project would not generate sufficient emissions of GHGs to contribute considerably to the cumulative effects of GHG emissions such that it would impair the state's ability to implement AB32, nor would the proposed project conflict with San Francisco's local actions to reduce GHG emissions.

OPR's guidance states that, "Although climate change is ultimately a cumulative impact, not every individual project that emits GHGs must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of a project". And, "In determining whether a proposed project's emissions are cumulatively considerable, the lead agency must consider the impact of the project when viewed in connection with the effects of "past, current and probable future projects."

As discussed previously, San Francisco has been actively pursuing cleaner energy, transportation and solid waste policies. In an independent review of San Francisco's community wide emissions it was reported that San Francisco has achieved a 5 percent reduction in communitywide greenhouse gas emissions below the Kyoto Protocol 1990 baseline levels. The 1997 Kyoto Protocol sets a greenhouse gas reduction target of 7 percent below 1990 levels by 2012. The "community-wide inventory" includes greenhouse gas emissions generated by San Francisco by residents, businesses, and commuters, as well as municipal operations. The inventory also includes emissions from both transportation sources and from building energy sources.

anticipates on implementing. Conservation measures the SFPUC currently implements results in an overall reduction of 0.64 million gallons of water per day (mgd).

Probable future greenhouse gas reductions will be realized by implementation of San Francisco's recently approved Green Building Ordinance. Additionally, the recommendations outlined in the AB 32 Scoping Plan will likely realize major reductions in vehicle emissions.

Given that: (1) the proposed project would not contribute significantly to global climate change such that it would impede the State's ability to meet its GHG reduction targets under AB 32, or impede San Francisco's ability to meet its GHG reduction targets under the Greenhouse Gas Reduction Ordinance; (2) San Francisco has implemented programs to reduce GHG emissions specific to new construction and renovations of residential and commercial developments; (3) San Francisco's sustainable policies have resulted in the measured success of reduced GHG emissions levels, and (4) current and probable future state and local greenhouse gas reduction measures will continue to reduce a project's contribution to climate change, the proposed project would not contribute significantly, either individually or cumulatively, to global climate change.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

I. WIND AND SHADOW

INTRODUCTION

This section addresses potential project impacts related to wind and shadow as these elements affect public areas.

ENVIRONMENTAL SETTING

Wind

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 includes little or no articulation.

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.¹ 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 winds along these streets.² 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 project area, the streets systems north of Market Street and portions of the systems south of Market Street (including those in the Mission District, Potrero, 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 patten of wind variation at pedestrian level.

The project area contains an historically windy area surrounding the Fox Plaza Building at Market and Polk Streets.³ The Fox Plaza Building is a slab-shaped structure exposed to prevailing winds and oriented with its wide face across the prevailing wind direction. This situation brings strong winds down from the tops of buildings down to street level. The east side of Van Ness Avenue north of Market Street also experiences strong winds, as well as Oak Street between Van Ness Avenue and Polk Street.

¹ *Market and Octavia Neighborhood Plan, Final EIR, Adopted September 2007, at page 4-141*

² *Id.*

³ *Id.*

Shadow

Shading is an important environmental issue because the users or occupants of certain land uses, such as residential, recreational/parks, churches, schools, outdoor restaurants, and pedestrian areas have some reasonable expectations for direct sunlight and warmth from the sun. These land uses are termed “shadow-sensitive”.

Shadow lengths are dependent on the height and size of the building from which they are cast and the angle of the sun. The angle of the sun varies with respect to the rotation of the earth (i.e., time of day) and elliptical orbit (i.e., change in seasons). The longest shadows are cast during the winter months and the shortest shadows are cast during the summer months.

In the City, the presence of the sun’s warming rays is essential to enjoying open space. This is because climatic factors, including ambient temperature, humidity, and wind, usually combine to create a comfortable climate only when direct sunlight is present. Therefore, the shadows created by new development nearby can critically diminish the utility of the open space. This is particularly a problem in the Downtown area and in adjacent neighborhoods, where there is a limited amount of open space, pressure for new development, and zoning controls allow tall buildings. The project area includes the Downtown area and many of the adjacent areas, including Civic Center, Nob Hill, Financial District, Mission Bay, and South of Market.

The project area is densely developed with urban uses. As discussed in Section V.J (Recreation) and listed in Table V.J-1, the project area is served by 75 neighborhood park, recreation, and open space facilities. These facilities are “shadow-sensitive.”

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Alter wind in a manner that substantially affects public areas; or
- Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Wind and shadow impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan may result in the development of buildings over 100 feet in height in portions of the area that may adversely affect the street-level wind environment. Wind evaluations will be required for future development for those projects that include buildings exceeding 100 feet in height. These wind evaluations will focus on the potential for hazardous wind conditions and will evaluate the need for building redesign, windbreak features, or further detailed wind-tunnel studies of structures. The building design and review process for each project will require analysis to determine whether there are any hazardous wind effects. Wind impacts will be evaluated on a project-by-project basis. Therefore, impacts related to wind impacts are considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

In some cases, implementation of the Bayview Hunters Point Redevelopment Plan may increase the potential height of new development in excess of 40 feet, which may potentially shade recreation and open space areas under the jurisdiction of the Recreation and Park Department. Projects resulting from the Plan will incorporate existing San Francisco Planning Code controls and development will be subject to Planning Code Sections 146, 147, and 295 regarding newly created shadows. Under Section 295, the Planning Commission may not approve a project determined to have significant shadow impacts on the use of a park property. Therefore, impacts related to shadow are considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, implementation of the Rincon Hill Plan will result in increased ground-level wind speeds. Exceedances of the City's 36-mph hazard criterion (per Planning Code Section 148) for certain durations will occur due to Plan implementation. These exceedances will have to be shown to be eliminated on a project-by-project basis in order for a project to receive approval under the Planning Code. During the individual project-specific environmental review process, potential wind effects of those specific projects will be considered and, if necessary, wind tunnel testing will be performed in accordance with City Planning Code Section 148 and/or Section 249.1, as it is amended (or replaced) as part of the Rincon Hill DTR District implementation. Incorporation of such language in the new Rincon Hill DTR District is, therefore, identified as a mitigation measure in the EIR. If exceedances of the wind hazard criterion should occur for any individual project, design modifications or other mitigation measures will be required to mitigate or eliminate these exceedances to ensure that any project will not constitute a significant environmental impact. Therefore, impacts related to wind are considered to be less than significant under the Rincon Hill Plan EIR.

While new development pursuant to the Rincon Hill Plan will add new shadows to the Rincon Hill area and beyond, the new shading will not affect open spaces protected by Planning Code Section 295. Individual projects, when proposed in the Rincon Hill area, will continue to be evaluated under Section 295 by the Planning Department on a case-by-case basis. New shadow will not be in excess of that which

is normal and expected in highly urban areas. Therefore, impacts related to shadow area considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, implementation of the Eastern Neighborhoods Rezoning and Area Plans will allow relatively few new locations with heights in excess of 80 feet and no revisions to height limits are proposed that will result in permitted heights in excess of 130 feet. Furthermore, the areas of 130-foot height limits will be limited to a handful of discrete locations. For projects that are found to result in potentially significant impacts on ground-level winds, design changes can typically be made to reduce these impacts to a less than significant level. Therefore, according to the Eastern Neighborhoods Rezoning and Area Plans EIR, impacts related to wind are considered to be less than significant at a plan level of analysis because the proposed rezoning and community plans will not allow for structures tall enough to create such significant impacts. The Planning Department, in review of specific future projects, will continue to require analysis of wind impacts, including wind-tunnel testing of specific project designs (where the most useful information is typically gleaned) where deemed necessary, to ensure that project-level wind impacts are mitigated to a less than significant level. Therefore, impacts related to wind are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, implementation of the Plan will increase height limits around 12 parks located in the Eastern Neighborhoods. However, all potential increases in the extent or duration of shadow will be somewhat ameliorated by the fact that all proposed development will be subject to site-specific environmental review and any additions or new development over 40 feet in height to the provisions of Planning Code Section 295. The extent and duration of shadow on public sidewalks may increase along street corridors where the Plan includes an increase in the maximum building height. However, these shadows will not be in excess of that which is expected in a highly urban area. None of the potential increases in shadow will alter temperatures in such a way to substantially affect public areas or change the climate in the community or region. Nevertheless, the Eastern Neighborhoods Rezoning and Area Plans EIR did not state with certainty that compliance with Section 295 would always mitigate any potential significant effects under CEQA.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, implementation of the Market and Octavia Neighborhood Plan will not have direct effects on wind, climate, or comfort, but may affect these factors indirectly as the area is built out. The Plan will result in an increase in residential, office and retail development potential and will increase pedestrian space through the creation of plazas, widening of sidewalks and other pedestrian-oriented infrastructure. By increasing the amount of allowable development and creating new pedestrian space, the Plan will indirectly increase the potential for adverse wind/comfort conditions. A determination of wind impacts will be made at a project level for specific development proposals on the parcels surrounding these open space improvements.

Under the Plan, allowable heights will be revised and new provisions for setbacks on towers will be imposed. The Market and Octavia Neighborhood Plan EIR concluded that the Plan will change the potential for wind impacts throughout much of the Market and Octavia Neighborhood. In areas where the Plan will increase allowable height, the Plan requirements for stepping back of tall towers and comfort standards included in the Plan will offset the potential impacts related to wind. A determination of wind impacts will be made at a project level for specific development proposals. However, according to the Market and Octavia Neighborhood Plan EIR, impacts resulting from individual developments in areas where height increases are proposed will be mitigated to a less than significant level. In areas where the Plan will decrease allowable height, potential impacts related to wind will be decreased. Therefore, impacts related to wind are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

The Market and Octavia Neighborhood Plan EIR concluded that shadow impacts related to new and proposed parks in the area (including Hayes Green, Octavia Plaza, McCoppin Square, and Brady Park) will not be significant because the parks were not yet constructed. Implementation of the Plan will result in development on Franklin Street that may cast mid-afternoon shadows on the War Memorial Open Space. In addition, incremental shading of the United Nations Plaza from towers at the Market Street and Van Ness Avenue intersection will occur in late winter afternoons. According to the Market and Octavia Neighborhood Plan EIR, both of these impacts are considered to be significant and unavoidable.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to wind and shadow due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential wind and shadow impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to wind and shadow and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to alter wind or create new shadow in a manner that substantially affects outdoor recreation or other public areas would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon

Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to wind and shadow. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to wind and shadow would be less than significant.

Furthermore, the EZ would comply with the San Francisco Planning Code, which contains the following provisions to ensure sunlight in parks and on sidewalks and reduction of wind currents:

- Planning Code Section 295, the Sunlight Ordinance, was adopted through voter approval of Proposition K in November 1994 to protect certain public open spaces from shadowing by new structures. Section 295 prohibits the issuance of building permits for structures or additions to structures greater than 40 feet in height that would shade property under the jurisdiction of, or designated to be acquired by, the Recreation and Park Commission, during the period from one hour after sunrise to one hour before sunset on any day of the year. An exception is permitted if both the Planning and Recreation and Park Commissions determine that the shadow would have an insignificant impact on the use of such property. All of the open spaces within the project area that are under Recreation and Park Department control are now protected by the Sunlight Ordinance (Section 295). Private open spaces, that are required under the Planning Code as part of an individual development proposal, are not subject to Section 295.
- 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 the hours around noon. Individual new development projects within the project area 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 intent to reduce shadows on certain public or publicly accessible Open spaces, other than those protected by Section 295 (Proposition K), in C-3, RSD, SLR, SU, or SSG Zoning Districts. Under this Planning Code section, all new development and additions to existing structures in C-3 Districts, where the height exceeds 50 feet, must be shaped to minimize shadow, in accordance with the guidelines of good design and without unduly restricting the development potential of the property.
- Planning Code Section 148 establishes two comfort criteria and one hazard criterion for assessing wind impacts of proposed projects in San Francisco. The comfort criteria are based on pedestrian-level wind speeds that include the effects of turbulence and are known as “equivalent wind speeds.” Section 148 of the Planning Code establishes an equivalent wind speed of 7 miles per hour (mph) for seating areas and 11 mph for areas of substantial pedestrian use. New buildings and additions to buildings may not cause ground-level winds to exceed these levels more than 10 percent of the time year round between 7:00 AM and 6:00 PM. If existing wind speeds exceed the comfort level, new buildings and additions in these areas must be designed to reduce ambient wind speeds to meet the requirements. Section 148 and Section 249 (c)(9) also establish a hazard criterion, which is an equivalent wind speed of 26 mph for a single full hour, not to be exceeded more than once during the year. New buildings in governed areas cannot exceed this standard.

Cumulative Impacts

The geographic context for cumulative wind and shadow impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to wind and shadow. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to wind and shadow. The contribution of potential impacts from the proposed project to the cumulative wind and shadow impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

J. RECREATION

INTRODUCTION

This section addresses potential project impacts related to parks and recreational facilities as well as other existing recreational resources.

ENVIRONMENTAL SETTING

Regional

Regional recreational facilities are provided by the East Bay Regional Park District in Alameda and Contra Costa counties; the National Park System in Marin, San Francisco, and San Mateo counties, as well as several State Park recreation facilities located throughout the Bay Area. In addition, thousands of acres of watershed and agricultural lands are preserved as open spaces by water and utility districts or in private ownership. The Bay Trail is a planned recreational corridor that, when complete, will encircle San Francisco and San Pablo Bays with a continuous 400-mile network of bicycling and hiking trails. It will connect the shoreline of all nine Bay Area counties, link 47 cities, and cross the major toll bridges in the region. To date, approximately 210 miles of the alignment, slightly more than half the Bay Trail's ultimate length, have been completed.¹

City of San Francisco

A majority of local-serving parks and recreation facilities within the EZ area are owned and operated by the San Francisco Recreation and Park Department (SFRPD). The San Francisco Recreation and Park Department maintains over 200 parks, playgrounds, and open spaces throughout the City, which function mainly for neighborhood use. The park system also includes 15 large, full-complex recreation centers, nine swimming pools, five golf courses, as well as hundreds of tennis courts, baseball diamonds, athletic fields and basketball courts. The SFRPD also manages the Marina Yacht Harbor, Candlestick Park, the San Francisco Zoo, and the Lake Merced Community Complex.² The SFRPD currently owns and manages a total of approximately 3,380 acres of parkland and open space. Combined with other City agencies and State and federal open space properties within the City, about 5,773 acres of recreational resources are available to San Franciscans.³ Nineteen percent of San Francisco's surface area is covered

¹ Association of Bay Area Governments, *About the Bay Trail, Overview*, website: <http://www.abag.ca.gov/abag/test/baytrail/overview.html>, accessed July 13, 2009.

² San Francisco Recreation and Park Department, *Welcome*, website: http://www.sfgov.org/site/recpark_index.asp?id=24168, accessed July 13, 2009.

³ City of San Francisco Planning Department, *Eastern Neighborhoods Rezoning and Area Plans, Draft EIR, Adopted June 30, 2007*, at page IV.H-1.

by park and open space uses, providing 7.7 acres of park land for every 1,000 residents. This is a relatively high percentage for a city with a population density of 24.7 people per acre.

Within San Francisco, publicly accessible open spaces and recreational facilities are categorized according to their size and particular amenities as serving the City, district, neighborhood, or sub-neighborhood. Several larger open space areas, including Golden Gate Park (1,017 acres), the Lake Merced complex (700 acres; 368-acre lake) and John McLaren Park (317 acres) compose about one-half of the total City-owned acreage in recreational use. Unlike neighborhood facilities, these larger areas provide programs, activities or recreation opportunities that serve the City as a whole. These spaces, in addition to smaller areas with unique attributes such as water features or hilltop vista points, function as city-serving open spaces because they attract residents from the entire City.

In addition to the larger open spaces, SFRPD land comprises more than 200 parks and recreational facilities (both outdoor and indoor), which function mainly for neighborhood use. These smaller facilities are primarily used by residents in the immediate surrounding area and are categorized by size and intended service area. District-serving parks are generally larger than ten acres and have a service area consisting of a three-eighths-mile radius around the park, while neighborhood-serving parks are generally one to ten acres and have a service area of one-quarter of a mile. Sub-neighborhood-serving open spaces, often referred to as mini parks, are too small to accommodate athletic facilities. These parks tend to include seating areas, small landscaped spaces, tot-lots targeting pre-school age children, and playgrounds with amenities generally for elementary school age children. The service area for sub-neighborhood parks is one-eighth of a mile.

Project Area

Table V.J-1 provides a list of the recreation facilities located with the project area. As shown in Table V.J-1, the project area is served by 75 neighborhood park, recreation, and open space facilities within San Francisco.^{4 5} The project area does not contain any large regional park facilities, but it does have several small parks and open spaces, and the larger facilities are within reasonable access. The project area is primarily served by neighborhood and sub-neighborhood parks.⁶

⁴ San Francisco Neighborhood Parks Council, "Green Envy: Achieving Equity in Open Space", November 2007.

⁵ San Francisco Neighborhood Parks Council, Google Parks Map, <http://www.sfnpc.org/parksmap>, accessed July 13, 2009.

⁶ *Id.* at page IV.H-2.

Table V.J-1
Existing Recreational Facilities in the San Francisco Enterprise Zone

Facility Name	Category/Ownership	Acreage
Ridgetop Plaza	Recreation and Park	0.28
Youngblood Coleman Playground	Redevelopment Agency	6.14
Palou Phelps Mini Park	Recreation and Park	2.66
Silver Terrace Playground	Recreation and Park	5.47
Selby/Palou Mini Park	Recreation and Park	0.20
Prentiss Mini Park	Recreation and Park	0.06
Wolfe Lane Community Park	Recreation and Park	0.10
South Park	Recreation and Park	0.85
Victoria Manalo Draves Park	Recreation and Park	2.51
South of Market Recreation Center	Recreation and Park	1.02
Precita Park	Recreation and Park	2.21
Parque Ninos Unidos	Recreation and Park	0.64
18 th and Utah Mini Park	Recreation and Park	0.20
Page Street Community Garden	Recreation and Park	0.08
Page/Laguna Mini Park	Recreation and Park	0.15
Union Square	Recreation and Park	2.60
St. Mary's Square	Recreation and Park	0.82
Portsmouth Square	Recreation and Park	1.29
Woh Hei Yuen	Recreation and Park	0.38
Washington Square	Recreation and Park	2.19
Telegraph Hill		
Russian Hill Open Space	Recreation and Park	1.51
Rowing Club/Dolphin Club	Recreation and Park	1.26
Gilman Playground	Recreation and Park	5.21
Bay View Park/Open Space	Recreation and Park	42.57
Le Conte Mini Park	Recreation and Park	0.15
Adam Rogers Park	Recreation and Park	2.80
Joseph Lee Recreation Center	Recreation and Park	1.85
Hilltop Park	Recreation and Park	3.46
India Basin/Shoreline Park (Open Space)	Recreation and Park	3.85
India Basin/Shoreline Park	Recreation and Park	9.79
James Rolph Junior Play Ground	Recreation and Park	2.93
Garfield Square	Recreation and Park	2.92
24 th and York Street Mini Park	Recreation and Park	0.12
Jose Coronado	Recreation and Park	0.78
Mission Recreation Center	Recreation and Park	0.64
Alice Marble Tennis Courts	Recreation and Park	2.60
Fay Park	Recreation and Park	0.25
Joe DiMaggio Playground	Recreation and Park	2.42

Table V.J-1 (Continued)
Existing Recreational Facilities in the San Francisco Enterprise Zone

Facility Name	Category/Ownership	Acreage
Michelangelo Playground	Recreation and Park	0.44
Broadway Tunnel East Mini Park	Recreation and Park	0.03
Ina Coolbirth Park	Recreation and Park	0.86
Justin Herman/Embarcadero Plaza	Recreation and Park	3.44
Maritime Plaza	Recreation and Park	2.01
Helen Willis Playground	Recreation and Park	0.80
Collins P. Huntington Park	Recreation and Park	1.07
Hooker Ally Community Garden	Recreation and Park	0.05
Father Alfred E. Boeddecker Park	Recreation and Park	0.97
Howard Langdon Mini Park	Recreation and Park	0.23
Beideman O'Farrell Mini Park	Recreation and Park	0.06
Cottage Row Mini Park	Recreation and Park	0.16
Golden Gate and Steiner Mini Park	Recreation and Park	0.08
Fillmore and Turk Street Mini Park	Recreation and Park	0.20
Buchanan Street Mall	Recreation and Park	N/A
Margaret S. Hayward Playground	Recreation and Park	5.03
Joseph L. Alioto Performing Arts Center	Recreation and Park	4.43
Koshland Park	Recreation and Park	0.82
Duboce Park	Recreation and Park	4.31
Franklin Square	Recreation and Park	4.44
Jackson Playground	Recreation and Park	4.41
McKinley Square	Recreation and Park	2.22
Esprit Park	Recreation and Park	1.83
Kidpower Park	Recreation and Park	0.23
Juri Commons	Recreation and Park	0.32
Coleridge Mini Park	Recreation and Park	0.21
Holly Park	Recreation and Park	7.57
Good Prospect Community Garden	Recreation and Park	0.11
Bay View Playground	Recreation and Park	3.40
<p><i>Source: San Francisco Neighborhood Parks Council, "Green Envy: Achieving Equity in Open Space", November 2007 (acres and category/ownership). San Francisco Neighborhood Parks Council, Google Parks Map, website: http://www.sfnpc.org/parksmap, accessed on July 13, 2009 (park locations).</i></p>		

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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;
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment; or
- Physically degrade existing recreational resources.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Recreation impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

The Bayview Hunters Point Redevelopment Plan includes open space projects that will convert industrial uses to open space and recreational uses and, in the case of shoreline parklands, will open up views of the bay that are currently blocked by industrial development or are inaccessible to the public. The Community Enhancements Program includes the Framework Open Space Program, which will guide the improvement, maintenance, and programming of publicly-owned open space in the area, in concert with the Recreation and Park Department and other local and state agencies regarding other open space resources in the Bayview Hunters Point area. The Framework Open Space Program will provide a mechanism to manage the long-term maintenance, enhancement, and development of the community’s open space and recreation system and will guide existing and new open spaces in the community. Another recreational component of the Bayview Hunters Point Redevelopment Plan is the Bayview Connections Urban Open Space Project being developed by Muni and the Department of Public Works. The project involves pedestrian and streetscape improvements that will enhance the linkages between transit, retail, neighborhood services, and cultural facilities in the center of Bayview Hunters Point. Because the area is predominantly industrial, increasing park services and open space will have no adverse impacts, and may even result in a positive beneficial impact to the community. In conclusion, impacts related to recreation were found to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

Impacts related to recreation were not discussed in the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, the Plans will not directly physically degrade any existing recreational resources within the Eastern Neighborhoods plan area or citywide, nor would the Plans result in any specific alternations to infrastructure, such as new park or recreational facility development. As such, no adverse physical impacts associated with the construction or expansion of recreational facilities is expected. The amount of city-serving recreational facilities is considered sufficient to meet the future demands of the Plans and, thus, the Plans will not result in a substantial increase in use of city-serving parks such that physical deterioration will occur or be accelerated. In the Eastern Neighborhoods plan area, residents will be provided with slightly less than the park acreage per resident ratio for facilities throughout the City. However, a local unmet demand for recreational services, in and of itself, is not considered a significant impact on the environment. The Plans include several open space requirements that will provide either on-site publicly accessible open space or will contribute to an open space fund. In addition, the Eastern Neighborhoods Rezoning and Area Plans EIR states that factors beyond an increase in population results in the deterioration of existing facilities. Impacts are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, the Market and Octavia Neighborhood Plan will not directly impact any of the existing parks or open space amenities within the Market and Octavia Neighborhood plan area. Since build-out under the Market and Octavia Neighborhood Plan will result in higher population densities in the Market and Octavia Neighborhood plan area, demand for or use of existing parks and open space by neighborhood residents will increase. The Hayes Valley and Civic Center areas have numerous parks and open space areas. However, the portion of the Neighborhood south of Market Street has no existing parks. Creation of new parks and open spaces and enhancement of streetscapes throughout the Neighborhood will offset the increased use of existing parks by an increase local population. The proposed Octavia Plaza, McCoppin Square, and Brady Park improvements will enhance recreational facilities in the project area. Overall, according to the Market and Octavia Neighborhood Plan EIR, the Plan will have a beneficial impact related to recreation. Thus, impacts are considered less than significant.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation

of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to recreation due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential recreation impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to recreation and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to cause increase use of existing neighborhood and regional parks resulting in substantial physical deterioration to facilities, include or require recreational facilities that have an adverse physical effect on the environment, or physically degrade existing recreational resources would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to recreation. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to recreation would be less than significant.

Cumulative Impacts

Cumulative impacts related to recreation are generally localized and affect the immediate vicinity surrounding development within the EZ. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed

project. The cumulative effect of development within the City could contribute to impacts related to recreation. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to recreation. The contribution of potential impacts from the proposed project to the cumulative recreation impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

K. UTILITIES AND SERVICE SYSTEMS

INTRODUCTION

This section addresses potential project impacts related to wastewater treatment requirements, wastewater treatment facilities, storm water drainage facilities, sufficiency of water supplies, adequate wastewater treatment capacity, adequate landfill capacity, and compliance with federal, state, and local statutes and regulations related to utilities and service systems.

ENVIRONMENTAL SETTING

Water Supply

The San Francisco Public Utilities Commission (SFPUC) provides water, wastewater, and municipal power services to the City. The SFPUC manages a complex water supply system stretching from the Sierras to the City, featuring a complex series of reservoirs, tunnels, pipelines, and treatment systems. The SFPUC Hetch Hetchy Water and Power Department provides approximately 85 percent of all water needs to San Francisco residents, as well as to residents of several other Bay Area counties. The Alameda and Peninsula watersheds produce the remaining 15 percent of the total water supply. The Hetch Hetchy system collects water from melting snow (from watersheds in Yosemite National Park and Stanislaus National Forest) and stores it in three major reservoirs. The water flows by gravity through approximately 150 miles of pipelines and tunnels, producing hydroelectric power as it flows down from the Sierras to customers in the San Francisco Bay Area. The drinking water provided through this system is among the purest in the world. The SFPUC's water delivery system has a "firm" delivery capacity, based on historical hydrological conditions, of approximately 239 million gallons per day (mgd). Prolonged droughts can lower this capacity, and periods of higher than normal rain can increase it. Currently the system delivers an annual average of 260 mgd to 2.4 million customers in its service area. Approximately one-third of those customers reside in San Francisco.¹

Within San Francisco, there are 12 reservoirs, totaling 408 million gallons of stored water. The SFPUC has 17 pump stations and approximately 1,250 miles of pipelines that deliver water to local customers. Approximately 800,000 people in the City receive water from this distribution system. The City's average daily water demand is currently about 91 mgd. This is projected to only slightly increase over the next thirty years.²

The SFPUC has completed a long-term water supply plan to ensure a reliable supply of high-quality drinking water for San Francisco retail and wholesale customers. Although City residents enjoy some of

¹ San Francisco Public Utilities Commission (SFPUC), *Water*, website: http://sfwater.org/mc_main.cfm/MC_ID/13, accessed July 13, 2009.

² *Market and Octavia Neighborhood Plan, Final EIR, Adopted September 2007, at page 4-338.*

the highest-quality water in the country, mostly high Sierra snowmelt from the pristine Hetch Hetchy Reservoir, the 167-mile SFPUC Regional Water System is vulnerable. It crosses three major seismically active earthquake faults on its way to City taps, and long-term climate change is expected to reduce the snowpack runoff that provides a substantial part of the City's water supply.

To supplement the imported water supply, and to help maintain delivery of drinking water in the event of a major earthquake, drought or decline in the snowpack, the SFPUC proposes to take advantage of several alternative locally produced, sustainable water sources. The Water Supply Diversification Program would reduce City dependence on imported water by incorporating recycled water for irrigation, local groundwater for potable purposes, and increased conservation to save water. The SFPUC is also looking at the possibility of desalination for use during drought periods. The Water Supply Diversification Program is part of the \$4.3 billion voter-approved Water System Improvement Program to upgrade the SFPUC Regional Water System and ensure reliable water delivery for more than 2.4 million customers in San Francisco and parts of three neighboring counties.³

Wastewater and Stormwater

SFPUC also manages San Francisco's wastewater system. In the City, wastewater includes water that is washed down drains and toilets in homes and businesses, as well as stormwater, water that is poured into catch basins located at the end of each block in the City. Freshwater flow from the City to the Bay has been almost entirely diverted to the City's combined sewer and stormwater system. This combined sewer system reduces pollution in the San Francisco Bay Area and Pacific Ocean by treating urban runoff that would otherwise flow straight into the Bay or Ocean. There are several different pollutants in wastewater, including solid and soluble organic materials, microorganisms and pathogens, litter and debris, and metals and organic compounds. Approximately 94 percent of wastewater comes from homes and businesses, and the rest from industry.

Wastewater flows from the entire east side of the City, including the project area, are transported to the Southeast Water Pollution Control Plant (Southeast Plant). The Southeast Plant is located on Phelps near Third and Evans streets in the Bayview District. The Southeast Plant can treat up to 150 million gallons per day (mgd) during a storm event, and treats an average dry weather flow of about 67 mgd.⁴ During dry weather, wastewater flows consist mainly of municipal and industrial sanitary sewage and wastewater; all dry weather wastewater flow is treated to a secondary level at the Southeast Plant.⁵ The treated water is

³ SFPUC, *San Francisco's Water Supply*, website: http://sfwater.org/mto_main.cfm/MC_ID/13/MSD_ID/165/MTO_ID/288, accessed July 13, 2009.

⁴ SFPUC, *Treatment Plant*, website: http://sfwater.org/mto_main.cfm/MC_ID/14/MSD_ID/117/MTO_ID/225, accessed July 13, 2009.

⁵ *Secondary treatment is the treatment of wastewater or sewage involving removal of organic matter using biological and chemical processes. This is a higher level of treatment than primary treatment, which is removal of floating and settleable solids using physical operations such as screening and sedimentation.*

then discharged to the Bay through the deep water outfall at Pier 80, north of the Islais Creek Channel, south of Cesar Chavez Street, along the Southern Waterfront.⁶

During wet weather, the combined sewage and stormwater system collects large volumes of stormwater runoff in addition to municipal and industrial wastewater. The combined wastewater and stormwater flow is conveyed to treatment facilities before it is eventually discharged into the Bay. Depending on the amount of rainfall, wet weather flows are treated to varying levels before discharge to the Bay. Up to 150 mgd of wet weather flows receive secondary treatment at the Southeast Plant. The Plant can also treat up to an additional 100 mgd to a primary treatment standard plus disinfection. Treated wet weather discharges from the Southeast Plant occur through the Pier 80 outfall directly to the Bay or through the Quint Street outfall to Islais Creek Channel. Only wastewater treated to a secondary level is discharged at the Quint Street outfall.⁷

Up to an additional 100 mgd of wet weather flows receive primary treatment plus disinfection at the North Point Wet Weather Facility, located on the north side of the City at 111 Bay Street, which operates only during wet weather. Treated effluent from this facility is discharged through four deep water outfalls, approximately 800 feet from the Bay shore and 18 feet below mean lower water level. Two of the deep water outfalls terminate at the end of Pier 33 and two terminate at the end of Pier 35 on the northeastern Bay shore.⁸

The combined sewer system includes storage and transport tanks, which are large concrete structures that, during wet weather, retain the combined stormwater and sewage flows that exceed the capacities of the Southeast Plant and the North Point Wet Weather Facility for later treatment. The storage/transport tanks prevent untreated stormwater and sewage from being discharged. When rainfall intensity results in combined flows that exceed the total capacity of the Southeast Plant, North Point Facility, and the storage and transport structures, the excess flows are discharged through 29 combined sewer overflows (CSO) structures located along the City's Bayside waterfront from Fisherman's Wharf to Candlestick Point. Discharges from the CSO structures, consisting of about 6 percent sewage and 94 percent stormwater, receive "flow-through treatment," which is similar to primary treatment, to remove settleable solids and floatable materials. Wet weather flows are intermittent throughout the rainy season, and combined sewer overflow events vary in nature and duration depending largely on the intensity of individual rainstorms.⁹

All discharges from the combined sewer system to the Bay, through either the outfalls or the CSO structures, are operated in compliance with the federal Clean Water Act and the State's Port-Cologne

⁶ SFPUC, website: www.sfwater.org, accessed July 13, 2009.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

Water Quality Control Act through permits issued by the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).¹⁰

Solid Waste

San Francisco generates about 5,600 tons of solid waste each day, including materials from residents and businesses. Less than one-third of this material, approximately 1,800 tons a day, is disposed of in landfills. Waste picked up in the City for disposal must be collected by permitted haulers. Norcal Waste Systems holds virtually all the permits in San Francisco, and collection is handled by two of Norcal Waste System's subsidiary companies, Sunset Scavenger and Golden Gate Disposal & Recycling. These companies transport waste to a consolidation center, called a Transfer Station, in the southeast sector of San Francisco, operated by SF Recycling & Disposal, a subsidiary of Norcal Waste Systems. All waste taken to the Transfer Station (approximately 82 percent of all waste generated in the City) is transported to Waste Management's Altamont Landfill, located 62 miles from San Francisco in Alameda County. The balance of the waste ends up in a number of other landfills in the region.¹¹

The City entered into a long-term landfill disposal agreement effective November 1, 1988, with the Sanitary Fill Company (now SF Recycling & Disposal) and the Oakland Scavenger Company (now Waste Management of Alameda County). The agreement provides for the disposition of up to 15 million tons of the City's municipal solid waste in the Altamont Landfill or 65 years of disposal, whichever comes first. As of December 31, 2007, approximately 11.875 million tons of this capacity had been used by San Francisco, leaving a balance of 3.125 million tons.

Waste generation in the City has been climbing fairly steadily for the past ten years. During the past three years, waste generation has increased somewhat more slowly. What has changed even more dramatically over the past decade is landfill diversion, made possible by recycling and composting programs, which has increased from less than 400,000 tons in 1995 to over 1.4 million tons in 2006. Total disposal for the City has been dropping since 2000, from 872,731 tons in 2000 to 663,404 tons in 2006, while diversion increased even more over the same period. Disposal at the Altamont landfill by SF Recycling & Disposal increased fairly consistently each year between 1995 and 2000, reaching a peak of 729,717 tons in 2000. Since then, disposal declined every year through 2005, when it dropped to 545,437 tons. In 2007, Altamont disposal dropped to 520,265 tons.¹²

¹⁰ *Regional Water Quality Control Board, San Francisco Bay Region, Water Quality Control Plan for the San Francisco Bay Basin, December 22, 2006.*

¹¹ *City and County of San Francisco, Department of the Environment, "Request for Qualifications: Landfill Disposal Capacity", at page 1, website: http://www.sfenvironment.org/downloads/library/1_salalternativesjanuary2008.pdf, accessed July 13, 2009.*

¹² *Ibid.*, at page 2.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- 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;
- 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;
- Have insufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements;
- 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;
- Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Would not comply with federal, state, and local statutes and regulations related to solid waste.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as "other areas". Utilities and service systems impacts related to the area plans and "other areas" are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan will result in development of approximately 2.4 million square feet of mixed uses. New population in Bayview Hunters Point will include approximately 20,896 new residents and approximately 5,308 net new employees. Development resulting from the Plan will use approximately 1,439,540 gallons per day of water. However, development and population growth associated with the Bayview Hunters Point Redevelopment Plan will be within the expected growth projections for the City according to the Bayview Hunters Point Redevelopment Plan EIR. Therefore, the

Plan was determined to have a less than significant impact related to water supply under the Bayview Hunters Point Redevelopment Plan EIR.

Implementation of the Plan will generate approximately 940,336 gallons of wastewater per day. However, development and population growth associated with the Bayview Hunters Point Redevelopment Plan will be within the expected growth projections for the City according to the Bayview Hunters Point Redevelopment Plan EIR. Therefore, the Plan was determined to have a less than significant impact related to wastewater under the Bayview Hunters Point Redevelopment Plan EIR.

Development under the Plan will be expected to generate 39,971 pounds per day and 10,392,460 pounds per year (260 weekdays) of solid waste. Due to recycling, composting, reuse, source reduction, and other efforts, the Bayview Hunters Point Redevelopment Plan EIR anticipates that the City will continue to improve solid waste service. In addition, the Bayview Hunters Point Redevelopment Plan EIR presumed an expansion of the Altamont Landfill. Because of the presumed increase related to solid waste recycling and the proposed landfill expansion in size and capacity, impacts related to solid waste were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR. In conclusion, all impacts related to utilities and service systems are considered to be less than significant as outlined in the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, implementation of the Rincon Hill Plan will incrementally increase demand for and use of utilities and service systems. However, development in Rincon Hill will be infill development within an area of the City that is already built-out and, according to the Rincon Hill Plan EIR, will not be expected to have any measurable impact related to utilities and service systems, including water supply.¹³ While development that is anticipated to occur with implementation of the Rincon Hill Plan will increase the intensity of land use, development will not typically require construction of new facilities, although upgrades of existing facilities may be required. Individual developments will comply with applicable laws, regulations concerning water conservation, such as installing low-flush toilets and urinals, as required by California State Building Code Section 402.0(c). In conclusion, all impacts related to utilities and service systems are considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, SFPUC accounted for and accommodated the increased residential population and changes in employment resulting from

¹³ *Water supply was determined to be adequate based upon responses to a questionnaire dated June 12, 1997 by Joseph Pelayo, Senior Engineer, City Distribution Division, San Francisco Water Department. The questionnaire was part of the environmental analysis for the previously proposed Transbay Area Plan, which encompassed an area that included Rincon Hill.*

implementation by the Eastern Neighborhoods Rezoning and Area Plans. Therefore, the Eastern Neighborhoods Rezoning and Area Plans will not require a major expansion of SFPUC's water facilities, nor would the Plans adversely affect the City's water supply. Impacts related to water supply are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Deficiencies in the sewer system resulted in flooding during periods of heavy rain in a large area of SoMa. SFPUC requires review by the San Francisco Department of Public Works (DPW) hydraulic engineers of building permits in this area so that improvements can be made on a project-by-project basis to ensure that properties are removed from risk of flooding. This DPW-SFPUC review process ensures that localized internal flooding in SoMa and Showplace Square areas is gradually eliminated as a concern. SFPUC also uses a Wastewater Master Planning process to develop a long-term strategy for the management of the City's wastewater and stormwater. In addition, the SFPUC began an interim five-year capital improvement program aimed at reducing flood risk in many neighborhoods, and upgrading treatment plants. Therefore, impacts related to wastewater are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Implementation of the Eastern Neighborhoods Rezoning and Area Plans will result in increased residential and commercial growth that will incrementally increase total waste generation from the City. However, the increasing rate of diversion through recycling and other methods will result in a decreasing share of total waste that requires deposition in the landfill. In addition, the Eastern Neighborhoods Rezoning and Area Plans EIR presumed an expansion of the Altamont Landfill. Therefore, impacts related to solid waste are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR. In conclusion, all impacts related to utilities and service systems are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, system-wide improvements to SFPUC's facilities will ensure continued adequacy of water supply and wastewater treatment services to meet projected demand for residential and commercial customers in San Francisco, including those in the Market and Octavia Neighborhood, with implementation of the Plan. Therefore, impacts related to water supply and wastewater are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Implementation of the Market and Octavia Neighborhood Plan will result in a demand for electricity that is negligible in the context of overall demand within the City and the State, and will not require a major expansion of power facilities. Therefore, impacts related to energy demand are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR. The Hetch Hetchy system is expected to continue producing more than enough power to meet San Francisco's municipal needs. Both San Francisco and PG&E prepare annual projections of electricity demand in the City and are involved in planning to meet future demand and increase grid reliability. In addition, alternative energy supply projects and conventional mid-size gas turbines are expected to enhance local power generation capability

and make the City less dependent on imported power to meet peak demand. Therefore, the Market and Octavia Neighborhood Plan EIR concluded that there will be sufficient power to meet demand under the Plan. Therefore, impacts related to gas and electricity services are considered to be less than significant under the Market and Octavia Neighborhood Plan EIR. In conclusion, all impacts related to utilities and service systems are considered less than significant under the Market and Octavia Neighborhood Plan EIR.

Impacts related to solid waste were not discussed in the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to utilities and service systems due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential utilities and service systems impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to utilities and service systems and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to exceed wastewater treatment requirements, require the construction or expansion of water or wastewater treatment facilities, require new or expanded water supply resources, result in inadequate capacity by the wastewater treatment provider, require landfill services that cannot accommodate the project’s solid waste disposal needs, or conflict with solid waste regulations would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to utilities and service systems. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon

Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to utilities and service systems would be less than significant.

Cumulative Impacts

Cumulative impacts related to utilities and service systems are generally localized and affect the immediate vicinity surrounding development within the EZ. The geographic context for cumulative utilities and service systems impacts is the project area. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to utilities and service systems. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to utilities and service systems. The contribution of potential impacts from the proposed project to the cumulative utilities and service systems impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

L. PUBLIC SERVICES

INTRODUCTION

This section addresses potential project impacts related to service ratios, response times, and performance objectives for public services including fire protection, police protection, schools, parks, and libraries.

ENVIRONMENTAL SETTING

Fire Protection

The San Francisco Fire Department (SFFD) serves an estimated 1.5 million people.¹ These services include fire suppression, advanced emergency medical treatment and transport, heavy rescue, fire prevention and investigation, and community education and emergency preparedness training. As of the Annual Report FY 04-05, the SFFD is made up of 1,675 uniformed and 66 civilian personnel.² The City's population in 2005 consisted of 799,731 persons.³ Therefore, the ratio of uniformed fire personnel to residents during that time was 2.09 to 1000 persons. Resources in FY 2004-2005 included 42 engine companies, 19 truck companies, 20 ambulances, 2 rescue squads, 2 fireboats, and 19 special purpose units.⁴ The SFFD is divided into several divisions that provide public services, which are described in Table V.L-1. The SFFD has 42 stations, 20 of which are located within or adjacent to the project area.

¹ *San Francisco Fire Department (SFFD), Homepage, website:*
http://www.sfgov.org/site/sffd_index.asp?id=48342, accessed July 13, 2009.

² *SFFD, FY 2004-05 Annual Report at page 8, website:*
<http://www.sfgov.org/site/uploadedfiles/firecomm/highlights/FY04-05.pdf>, accessed July 13, 2009. (San Francisco Police Department personnel verified by telephone on October 24, 2008 that this is the most current annual report available.)

³ *California Department of Finance, California County Population Estimates and Components of Change by Year — July 1, 2000–2007, website:*
http://www.dof.ca.gov/HTML/DEMOGRAP/ReportsPapers/Estimates/E2/E-2_2000-07.php, accessed July 13, 2009.

⁴ *Id.*

**Table V.L-1
Divisions within the San Francisco Fire Department**

Division	Jurisdiction	Additional Information
Division 2	Downtown and Financial Districts, extending through the northwestern boundaries of the City.	Includes majority of the City's high-rise buildings, schools, hospitals, churches, community centers, commerce, historical landmarks, underground transportation systems, tunnels, and bridges. Densely populated.
Division 3	South of Market area, extending through the southwestern boundaries and up to the southern border of the City. San Francisco International Airport, Treasure Island/Yerba Buena Island and the Hunter's Point Naval Shipyard. Public Transportation maintenance and repair yards and an extended area of port facilities.	Residential and commercial buildings, underground construction, wood-frame residential structures in densely populated neighborhoods such as the Mission district, and the only heavy concentration of industrial occupancies found in the city.
Emergency Medical Services	Countywide. Basic Life Support, Advanced Life Support, First Responder, EMT and paramedic programs.	In FY 2004-2005, SFFD responded to over 73,000 EMS and EMS-related incidents, 60,296 of which resulted in hospital transports by ambulance.
Airport Division	San Francisco International Airport (SFIA) community. Fire protection, water rescue, fire prevention, code enforcement, emergency medical services, hazardous materials abatement, community-based fire safety, CPR, and Automatic External Defibrillator (AED) services and training.	Half a million passengers move through SFIA every week and are serviced by three fire stations.
Bureau of Fire Prevention	Countywide.	Inspection of buildings and premises to ascertain and correct any conditions that have the potential to cause fire or contribute to a fire's spread.
Port Fire Marshal	Seven and 1/2 miles of waterfront jurisdiction.	Construction and referral inspections, plan review, technical conferences, pier and structural surveys, and issuance of permits.
Bureau of Fire Investigation	Countywide. Incendiary Vehicle Fire Program, the Arson Early Warning System, and the Juvenile Fire Setting Program.	Responsible for investigating the cause, origin and circumstances of a fire, including whether the fire was accidental or criminal in nature.
Emergency Communications Department	9-1-1 operations and public safety dispatch services to San Francisco residents and visitors.	-
Division of Homeland Security	Countywide. Homeland Security and Disaster response program.	-
<p><i>Source: SFFD, Annual Report FY 04-05, website: http://www.sfgov.org/site/uploadedfiles/firecomm/highlights/FY04-05.pdf, accessed July 13, 2009.</i></p>		

Police Protection

The San Francisco Police Department (SFPD) is divided into four bureaus: Administration, Airport, Field Operations, and Investigations. As of 2007, the officers in the patrol division consisted of 1,165 members.⁵ As of January 2008, the City's population consists of 824,525 persons. Therefore, the ratio of field officers to population is approximately 1.41 officers per 1,000 residents. The current nationally-accepted standard service ratio is 1.25 officers per 1,000 residents, and the California standard ranges from 1.4 to 1.7 per 1000 residents.

According to the 2004 Annual Report, officers responded to 1.3 million calls for service, arrested over 53,000 suspects, and issued over 88,000 traffic citations, which resulted in San Francisco's continued status as one of the ten safest cities in the U.S.⁶ The average response time for highest priority calls, such as for reports of homicide, robbery, or crimes involving weapons, is 4.36 minutes.⁷ The average response time for second priority and third priority calls is 8.02 and 11.37 minutes respectively.⁸ Response times have remained largely consistent since 2002.

The major divisions of the SFPD are the Investigations Bureau and the Field Operations Bureau. The Field Operations Bureau consists of ten districts; a majority of these districts contain some portion of the project area. The Investigations Bureau is responsible for investigating and documenting personal and property crimes; preparing cases for prosecution by the District Attorney's Office; carrying out the functions of the Special Investigations Bureau, Gang Task Force, Narcotics and Vice Division, Juvenile and Family Services Division, and Forensic Services Division; and working with federal, state and local agencies on multi-jurisdictional investigations.

In a May 2008 letter to Mayor Gavin Newsom regarding police effectiveness, the City Controller highlighted the immediate need for two new police stations, the need for new strategies to address the long-standing crime concentration in the northeastern portions of the City, and the desire of police staff and community residents for additional police presence in the districts and on patrol.⁹ Major issues for the stations include that they are at capacity or too small for the number of officers assigned, storage is

⁵ *San Francisco Police Department (SFPD), District Station Boundaries Analysis, May 13, 2008, at page 45, website: http://www.sfgov.org/site/uploadedfiles/police/information/SFPD_DSBAfinal_trnsmatl.pdf, accessed July 13, 2009.*

⁶ *SFPD, 2004 Annual Report, at page 18, website: <http://www.sfgov.org/site/uploadedfiles/police/information/2004%20annual%20report.pdf>, accessed July 13, 2009. (A more recent annual report does not appear to be available.)*

⁷ *SFPD, District Station Boundaries Analysis, May 13, 2008, at pages 43-44, website: http://www.sfgov.org/site/uploadedfiles/police/information/SFPD_DSBAfinal_trnsmatl.pdf, accessed July 13, 2009.*

⁸ *Id.*

⁹ *Letter from City Controller to Mayor Gavin Newsom, May 13, 2008, website: http://www.sfgov.org/site/uploadedfiles/police/information/SFPD_DSBAfinal_trnsmatl.pdf, accessed July 13, 2009.*

lacking, locker rooms are inadequate, and technology is outdated or nonexistent.¹⁰ Two of the district stations are not seismically sound and need to be replaced in the near future.¹¹ Security issues regarding police parking, juvenile detention, and entry areas are of concern for most or all stations.¹² In the Tenderloin, Mission, Northern, Central, Southern, and Bayview districts, all of which contain a substantial portion of the project area, at least 20 percent to 50 percent of the population lives below the poverty level, which is a direct factor related to the demands on police resources.¹³

Schools

Founded in 1851, the San Francisco Unified School District (SFUSD) educated approximately 55,069 of San Francisco's pre-school, elementary, middle and high school students at 34 preschools, 102 K-12 schools, 8 county/court schools, and 9 charter schools during the 2007-2008 school year.¹⁴ ¹⁵ SFUSD had 3,240 teachers during the 2007-2008 school year with a ratio of one teacher to 17.7 students.¹⁶ ¹⁷ SFUSD has 104 Nationally Board-Certified Teachers, which means that the teachers have at least three years of teaching experience and have undergone rigorous qualifications assessment through demonstration of a portfolio of practices as well as written examinations to show deep knowledge of the subjects they teach.¹⁸ Average teaching experience within the SFUSD for K-12 teachers is 11.3 years.¹⁹ In March 2008, 535 San Francisco teachers received layoff notices due to the State's budget crisis.²⁰

¹⁰ *SFPD, District Station Boundaries Analysis, May 13, 2008, at page 20, website: http://www.sfgov.org/site/uploadedfiles/police/information/SFPD_DSBAfinal_trnsmntl.pdf, accessed July 13, 2009.*

¹¹ *Id. at pages 21, 27.*

¹² *Id. at page 22.*

¹³ *Id. at page 29.*

¹⁴ *San Francisco Unified School District (SFUSD), About SFUSD, Overview, website: <http://www.sfgov.org/site/frame.asp?u=http://portal.sfusd.edu/template/default.cfm>, accessed July 13, 2009.*

¹⁵ *Education Data Partnership, District Report, selection for County of San Francisco, website: <http://www.ed-data.k12.ca.us/Navigation/fsTwoPanel.asp?bottom=%2Fprofile%2Easp%3Flevel%3D06%26reportNumber%3D16>, accessed July 13, 2009.*

¹⁶ *California Department of Education, Education Demographics Unit, Teacher and Staff Data 2007-08, website: <http://dq.cde.ca.gov/dataquest/SearchName.asp?rbTimeFrame=oneyear&rYear=2007-08&cName=&Topic=Paif&Level=District&submit1=Submit>, accessed July 13, 2009.*

¹⁷ *Education Data Partnership, District Report, selection for County of San Francisco, website: <http://www.ed-data.k12.ca.us/Navigation/fsTwoPanel.asp?bottom=%2Fprofile%2Easp%3Flevel%3D06%26reportNumber%3D16>, accessed July 13, 2009.*

¹⁸ *SFUSD, About SFUSD, Did you know?, website: <http://portal.sfusd.edu/template/default.cfm?page=about.didyouknow>, accessed July 13, 2009.*

¹⁹ *Id.*

²⁰ *Tucker, Jill, San Francisco Chronicle Staff Writer, SF Gate, "Layoff Notices Set to Hit Teachers' Mailboxes", March 14, 2008, website: <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/03/14/MN6UVJBH.DTL>, accessed July 13, 2009.*

SFUSD's student enrollment consists of 19,051 high school students (grades 9-12), 10,131 middle school students (grades 6-8), 21,240 elementary school students (grades K-5), and 4,669 students in alternative grade span schools.²¹

Academic results show disparity in achievement between ethnic groups. Only 31.8 percent of African American students who entered the ninth grade in 2003 in a San Francisco high school received a San Francisco high school diploma four years later.²² The percent of Latino students was 43.2 and the district performance overall was 62.8 percent.²³

Parks²⁴

As discussed in further detail in Section V.J (Recreation), the San Francisco Recreation and Park Department (SFRPD) maintains over 200 parks, playgrounds, and open spaces throughout the City, which function mainly for neighborhood use. The park system also includes 15 large, full-complex recreation centers, nine swimming pools, five golf courses, as well as hundreds of tennis courts, baseball diamonds, athletic fields and basketball courts. The SFRPD also manages the Marina Yacht Harbor, Candlestick Park, the San Francisco Zoo, and the Lake Merced Community Complex. About half of the City-owned acreage is composed of a few large open space areas which are used by residents throughout the City. The other half is made up of smaller open spaces which are distributed throughout the City and used by residents of the area surrounding the open space. The City, State and federal property permanently dedicated to open space uses total approximately 5,773 acres, or 7.7 acres per 1,000 San Francisco residents.²⁵ This is about three quarters of the standard of the National Park and Recreation Association (NPRA), which calls for 10 acres of open space per 1,000 residents in cities. Given the City's existing development patterns, high population density, and small land mass, the NPRA standard will not be possible to achieve within City limits. Table V.J-1 in Section V.J (Recreation) provides a list of the recreation facilities located within the project area.

Libraries

The San Francisco Public Library consists of 28 branch libraries, the Main Library located in the Civic Center area and in the project area, and a book mobile program. The Citywide library holdings in fiscal

²¹ San Francisco Unified School District (SFUSD), *School Information*, website: <http://www.sfgov.org/site/frame.asp?u=http://portal.sfusd.edu/template/default.cfm>, accessed July 13, 2009.

²² San Francisco Unified School District 2008-2012 Strategic Plan, June 2008 at page 46, website: <http://www.sfgov.org/site/frame.asp?u=http://portal.sfusd.edu/template/default.cfm>, accessed July 13, 2009.

²³ *Id.*

²⁴ Unless cited otherwise, all information in this section was obtained from City and County of San Francisco, Planning Department, *Recreation and Open Space Element of the General Plan*, adopted May 25, 2005.

²⁵ Neighborhood Parks Council, *Green Envy: Achieving Equity in Open Space*, November 2007, website: <http://www.sfnpc.org/greenenvy>, accessed July 13, 2009.

year 2006-2007 included 2,468,585 books, of which 1,274,732 books are contained in the Main Library.²⁶ During this time, the various libraries were visited by patrons 5,106,366 times, of which 1,973,281 visits were to the Main Library.²⁷ Also during this time, the library system organized and hosted 7,365 events at which 271,558 visitors attended.²⁸ These programs consisted of classes, lectures, panel discussions, author readings, exhibits, films, meetings, performances, celebrations, school visits and summer reading enrollees.²⁹ Most of these events were for children and youth and were attended by 225,493 children.³⁰ All libraries are open seven days a week and are open later on some weeknights until 8:00 PM.

In November 2000, voters passed a bond measure for \$105.9 million to upgrade San Francisco's branch library system and in November 2007, voters passed Proposition D authorizing additional funding to improve the branches.³¹ The Branch Library Improvement Program's goal is to will provide for seismically safe, accessible, and technologically-current branch libraries in each neighborhood.³²

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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 Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those

²⁶ *San Francisco Public Library, Statistics, website: <http://www.sfpl.org/librarylocations/administration/stats.htm>, accessed July 13, 2009.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *City and County of San Francisco, Public Library, Branch Library Improvement Program, website: <http://www.sfgov.org/site/frame.asp?u=http://www.sfpl.org/>, accessed July 13, 2009.*

³² *Id.*

covered by a previously prepared programmatic EIR are referred to as “other areas”. Public services impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, the increased intensity of uses resulting from implementation of the Bayview Hunters Point Redevelopment Plan may potentially increase the service calls to the SFPD and will require increased crime prevention activities and additional policing in Bayview Hunters Point. Since the existing Bayview Station was constructed in 1997, the Bayview Hunters Point Redevelopment Plan EIR assumed that this facility will be able to provide adequate space for some of the additional 80 sworn officers that will be needed as a result of the Plan. According to the Bayview Hunters Point Redevelopment Plan EIR, this increase in personnel and anticipated related increase in police facilities is considered to be a less than significant impact because new development will be subject to impact fees that may be used to construct new facilities. Furthermore, the SFPD bases its future growth and projections upon ABAG projections and the population increase as a result of the Bayview Hunters Point Redevelopment Plan was already assumed under the ABAG projections for the City as a whole. In addition, the Bayview Hunters Point Redevelopment Plan will eliminate blight through physical improvements that may also help lessen illegal activities through the introduction of new residents and a revitalized commercial district along Third Street.

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan may cause delays in SFFD response times due to traffic concerns and added call volume. Based on the potential for increased medical calls, responses to alarms, and increased traffic in the area, the Bayview Hunters Point Redevelopment Plan EIR states that another ambulance and possibly another engine company will be necessary to serve Bayview Hunters Point following implementation of the Plan. The Bayview Hunters Point Redevelopment Plan EIR states that future revenues resulting from the Plan may be used to help maintain firehouses in the area if deemed necessary by the City. This, combined with the relatively dispersed and incremental nature of development that would occur under the Plan, would result in a less than significant impact related to fire services under the Bayview Hunters Point Redevelopment Plan EIR. With respect to fire flows, the SFFD reviews all development plans prior to construction to ensure that adequate fire flows will be maintained and that an adequate number of fire hydrants will be provided in the appropriate locations in compliance with the California Fire Code. According to the Bayview Hunters Point Redevelopment Plan EIR, although the existing fire flows are unknown, adequate fire flows will be required by law prior to construction.

According to the Bayview Hunters Point Redevelopment Plan EIR, the increase of approximately 1,248 students within the SFUSD as a result of implementation of the Plan will increase enrollment in the schools serving the Bayview Hunters Point plan area, which may reach the existing capacity of these schools. As this is a conservative analysis and the SFUSD anticipates a decrease in the student population over the next ten years, new or expanded school facilities are not anticipated to be required as a direct result of implementation of the Bayview Hunters Point Redevelopment Plan. Therefore, impacts related

to school services were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

New development associated with the Bayview Hunters Point Redevelopment Plan will contribute revenue from property taxes to the City fund, which may be used to fund library services. In addition, new development will also be subject to development impact fees that may be used to construct new library facilities or expand existing libraries. As such, impacts associated with library services were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Implementation of the Bayview Hunters Point Redevelopment Plan will likely increase the demand for new or expanded park services. However, new development in the Bayview Hunters Point plan area will contribute revenue from property taxes to the City fund, which may be used to fund expanded park services. In conclusion, all impacts related to public services were considered to be less than significant as outlined in the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, implementation of the Rincon Hill Plan will incrementally increase demand for and use of public services. However, development in the Rincon Hill plan area will be infill development within an area of the City that is already built-out and, according to the Rincon Hill Plan EIR, is not be expected to have any measurable impact related to public services. While development that is anticipated to occur with implementation of the Rincon Hill Plan will increase the intensity of land use, development will not typically require construction of new facilities, although upgrades of existing facilities may be required. Individual developments will comply with applicable laws, regulations, and development impact fees. In conclusion, all impacts related to public services were considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, implementation of the Eastern Neighborhoods Rezoning and Area Plans will introduce new uses and associated population increases, which will create some additional demand for fire suppression and emergency medical services in the Eastern Neighborhoods plan area. According to the Eastern Neighborhoods Rezoning and Area Plans EIR, development under one of the rezoning options may result in an incremental increase in the number of light-industrial businesses Citywide that handle hazardous materials, although the actual difference will depend on which PDR businesses are involved. This small potential increase in the number of PDR businesses and the incremental difference in numbers between options are not anticipated to result in the need for new or expanded SFFD facilities. Implementation of the Eastern Neighborhoods Rezoning and Area Plans will increase the number of fire suppression and emergency medical service calls received from the Eastern Neighborhoods and potentially the level of regulatory oversight that must be provided in regard to hazardous materials storage and development permits. However, the increases will be incremental, funded largely through project-related increases to the City's tax base, and will not likely be

substantial in light of the existing demand and capacity for fire suppression and emergency medical services in the City. The Eastern Neighborhoods Rezoning and Area Plans will not require the construction of new or physically altered facilities or significantly increase the need for staff. Therefore, impacts related to fire and emergency medical services were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Implementation of the Eastern Neighborhoods Rezoning and Area Plans will create some additional demand for police services in the Eastern Neighborhoods because development in the Eastern Neighborhoods plan area may increase the number of calls received or the level of regulatory oversight that must be provided. However, this increase in responsibilities will not likely be substantial in light of the existing demand and capacity for police protection services in the Eastern Neighborhoods plan area. Development in the Eastern Neighborhoods plan area will not increase demand in excess of amounts already provided and will not require the construction of any new police facilities. According to the Eastern Neighborhoods Rezoning and Area Plans EIR, the Plans will not be expected to adversely affect the ability of the SFPD to adequately provide police protection services to the Eastern Neighborhoods plan area and to the City as a whole; therefore, impacts related to police services were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Implementation of the Eastern Neighborhoods Rezoning and Area Plans will increase student enrollment by about 2,000 students in the Eastern Neighborhoods plan area. The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), restricts the ability of local agencies, such as the City and County of San Francisco, to deny land use approvals on the basis that public school facilities are inadequate. The payment of development impact fees is intended to compensate for potential impacts to local school districts that may be attributed by new developments. The collection of these fees is considered under SB 50 to fully mitigate any potential effects associated with additional development that may result from implementation of the Eastern Neighborhoods Rezoning and Area Plans. Therefore, impacts related to school services were not considered to be significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

In conclusion, all impacts related to public services were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

Impacts related to public services were not discussed in the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or

industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to public services due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential public services impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to public services and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to result in substantial adverse physical impacts that require alterations to existing government facilities in order to maintain acceptable standards related to any public services would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to public services. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, and the Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to public services would be less than significant.

Cumulative Impacts

The geographic context for cumulative public services impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to public services. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an

overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to public services. The contribution of potential impacts from the proposed project to the cumulative public services impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

M. BIOLOGICAL RESOURCES

INTRODUCTION

This section addresses potential project impacts related to sensitive or special status species, riparian habitats and sensitive natural communities, federally protected wetlands, movement of native or migratory fish and wildlife species as well as wildlife corridors and wildlife nursery sites, local policies and ordinances protecting biological resources, and habitat conservation and natural community conservation plans.

ENVIRONMENTAL SETTING

The project area is located in a highly developed urban area. Land uses within the project area and vicinity are characterized primarily by generally moderate to high-density urban uses, including residential, commercial, and industrial uses. The majority of the project area, specifically the areas located on the waterfront, was formerly part of the San Francisco Bay. Early survey maps for the mid-1800s show the shoreline in this area inland of the current shoreline. Extensive filling took place in the 1800s, which greatly reduced the marshland and Bay habitat.

Sensitive and Special Status Species

Special-status species are plants and animals that are legally protected under the California Endangered Species Act (CESA) and/or Federal Endangered Species Acts (FESA) or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat.

A search of the California Natural Diversity Database (CNDDDB) was conducted to identify sensitive plant and wildlife species historically noted in the project area. The CNDDDB report includes the Hunter's Point (448A), USGS 7.5-Minute Quad; the San Francisco North (466C), USGS 7.5-Minute Quad; and the San Francisco South (448B), USGS 7.5-Minute Quad. The search identified the following plant and wildlife species: Beach layia (*Layia carnosa*), California seablite (*Suaeda californica*), Marin western flax (*Hesperolinon congestum*), Marsh sandwort (*Arenaria paludicola*), Paacific manzanita (*Arctostaphylos pacifica*), Presidio clarkia (*Clarkia franciscana*), Presidio Manzanita (*Arctostaphylos hookeri ssp. ravenii*), Robust spineflower (*Chlorizantha robusta* var. *robusta*), San Bruno mountain manzanita (*Arctostaphylos imbricata*), San Francisco lessingia (*Lessingia germanorum*), White-rayed pentachaeta (*Pentachaeta bellidflora*), Bank swallow (*Riparia riparia*), Bay checkerspot butterfly (*Euphydryas editha bayensis*), California clapper rail (*Rallus longirostris obsoletus*), California red-legged frog (*Rana aurora draytonii*), Callippe silverspot butterfly (*Speyeria callippe callippe*), Mission blue butterfly (*Plebejus icarioides missionensis*), San Bruno elfin butterfly (*Callophrys mossil bayensis*), Southern sea otter

(*Enhydra lutris nereis*), Tidewater goby (*Eucyclogobin newberryi*), and Western snowy plover (*Charadrius alexandrinus nivosus*). These species, their specific habitat requirements, and potential for occurrence in the project area are outlined in Table V.M-1.

Table V.M-1
Sensitive Species with Potential to Occur at the Project Area

Species: Common Name (Scientific Name)	Sensitivity Status Federal/State	Typical Habitat	Potential for Occurrence
Beach layia (<i>Layia carnosa</i>)	Endangered / Endangered	This species is restricted to openings in coastal sand dunes ranging in elevation from 0-100 feet, where it colonizes sparsely vegetated, semi-stabilized dunes and areas of recent wind erosion.	This species has a restricted habitat range and does not occur outside of coastal sand dunes. The project area is not located in the vicinity of this habitat type. Therefore, no suitable habitat exists in the project area for this species and it would not occur.
California seablite (<i>Suaeda californica</i>)	Endangered / None	Margins of coastal salt marshes.	This species is restricted to an elevation of <5 m within coastal salt marsh habitat. The project area is situated at an elevation of above 5m in an area of urban development. The project area does not possess suitable habitat and therefore, this species would not occur on the project area.
Marin western flax (<i>Hesperolinon congestum</i>)	Threatened / None	Chaparral and valley and foothill grasslands on serpentine soils.	Although there are several occurrences recorded in the CNDDDB on the San Francisco North quad, the project area lacks potential serpentine soil habitat and is located in an area of urban development. A number of the CNDDDB database occurrences are extirpated.
Marsh sandwort (<i>Arenaria paludicola</i>)	Endangered / None	Freshwater marshes and swamps.	Site lacking potential habitat. Additionally, the only known occurrence recorded in the CNDDDB on the San Francisco North quad is extirpated. This occurrence is from the late 1800s and the location is the Presidio Swamp, San Francisco. This species would not be expected to occur in the project area.
Pacific manzanita (<i>Arctostaphylos pacifica</i>)	None / Endangered	It is part of the north coast scrub community in two distinct, historically limited populations on San Bruno Mountain, San Mateo County.	The project area is not located near the San Bruno Mountain and no habitat is available to support its specific habitat requirements. This species would not be present in the project area.
Presidio clarkia (<i>Clarkia franciscana</i>)	Endangered / None	Coastal scrub and valley and foothill grasslands on serpentine outcrops.	Although extant occurrences are recorded in the CNDDDB on the San Francisco North quad, the project area lacks potential serpentine habitat and this species would not

Table V.M-1 (Continued)
Sensitive Species with Potential to Occur at the Project Area

Species: Common Name (Scientific Name)	Sensitivity Status Federal/State	Typical Habitat	Potential for Occurrence
			likely occur in the project area.
Presidio manzanita (<i>Arctostaphylos hookeri</i> ssp. <i>ravenii</i>)	Endangered / Endangered	Chaparral, coastal prairie, and coastal scrub on open, rocky serpentine slopes.	Although there are several occurrences recorded in the CNDDDB in the San Francisco North quad, the project area lacks serpentine habitat. Additionally, a number of these occurrences are extirpated. This species would not be present in the project area.
Robust spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>)	Endangered / None	Species is restricted to sandy soils associated with coastal dunes and inland sites of the southern Santa Cruz and Monterey Counties.	Although CNDDDB records indicate an occurrence of this species in the San Francisco South quad, it was over 20 years ago and the site is located in an area of urban development. This species would not be present in the project area.
San Bruno mountain manzanita (<i>Arctostaphylos imbricata</i>)	None / Endangered	It forms dense, mat-like colonies on shallow soils derived from Franciscan sandstone, greywacke, or shale.	San Bruno Mountain Manzanita is known only from the summit of San Bruno Mountain in San Mateo County. Although the CNDDDB records show an occurrence of this species within the San Francisco southern quad, no suitable habitat exists in the project area. This species would not be present in the project area.
San Francisco lessingia (<i>Lessingia germanorum</i>)	Endangered / Endangered	Coastal dunes	Although extant occurrences are recorded in the CNDDDB on the San Francisco South quad, the project area lacks potential habitat. This species would not be present in the project area.
White-rayed pentachaeta (<i>Pentachaeta bellidflora</i>)	Endangered / Endangered	Valley and foothill grasslands in open, dry rocky slopes.	Site lacking potential habitat. Additionally, the only known occurrence recorded in the CNDDDB on the San Francisco South quad is extirpated. This species would not be present in the project area.
Bank swallow (<i>Riparia riparia</i>)	None / Threatened	Open and partly open situations, frequently near flowing water (AOU 1983). Nests in steep sand, dirt, or gravel banks, in a burrow dug near the top of the bank, along the edge of inland water or along the coast, or in gravel pits, road embankments. Adults have high degree of site fidelity.	It is possible that this species will pass over and forage on the site. However, breeding habitat is absent and the last sighting of this species within the San Francisco South quad, was over 20 years ago. It is highly unlikely this species would be present on the project area.

Table V.M-1 (Continued)
Sensitive Species with Potential to Occur at the Project Area

Species: Common Name (Scientific Name)	Sensitivity Status Federal/State	Typical Habitat	Potential for Occurrence
Bay checkerspot butterfly (<i>Euphydryas editha bayensis</i>)	Threatened/None	Native grasslands on outcrops of serpentine soil.	Site lacking potential habitat. Additionally, the only known occurrence recorded in the CNDDDB on the San Francisco South quad is extirpated. This occurrence is from the 1980s and the location is Twin Peaks, San Francisco. This species would not be present in the project area.
California clapper rail (<i>Rallus longirostris obsoletus</i>)	Endangered / Endangered	This species forages at the upper end of marshes, along the ecotone between mudflat and higher vegetated zones, and in tidal sloughs.	No suitable habitat exists in the project area for this species. Additionally, in view of the secret nature of this rare species, it is unlikely it would occur on a site with significant amounts of human activity. This species would not occur in the project area.
California red-legged frog (<i>Rana aurora draytonii</i>)	Threatened / None	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Although extant occurrences are recorded in the CNDDDB on the San Francisco South quad, the project area lacks potential habitat. This species would not be present in the project area.
Callippe silverspot butterfly (<i>Speyeria callippe callippe</i>)	Endangered	Northern coastal scrub supporting the larval host plant (<i>Viola pedunculata</i>).	Project area lacking potential habitat. Additionally, the only known occurrence recorded in the CNDDDB on the San Francisco South quad is extirpated. This species would not be present in the project area.
Mission blue butterfly (<i>Plebejus icarioides missionensis</i>)	Endangered / None	Grasslands supporting larval host plants (<i>Lupinus</i> spp.).	Although extant occurrences are recorded in the CNDDDB on the San Francisco South quad, the project area lacks potential habitat. This species would not be present in the project area.
San Bruno elfin butterfly (<i>Callophrys mossii bayensis</i>)	Threatened / None	Rocky outcrops and cliffs in coastal scrub on the San Francisco peninsula. Its patchy distribution reflects that of its host plant, stonecrop (<i>Sedum spathulifolium</i>).	No suitable habitat for either this species, or its host plant currently exists in the project area. Although sightings have been recorded in the CNDDDB, these are over 20 years old and the project area is located in an area of urban development. This species would not be present in the project area.
Southern sea otter (<i>Enhydra lutris nereis</i>)	Threatened / None	Near shore marine habitats with canopies of giant kelp and bull kelp.	Although there is an extant occurrence recorded in the CNDDDB on the San Francisco North quad, the project area lacks potential habitat as it lacks water bodies that contain giant and/or bull kelp.
Tidewater goby (<i>Eucyclogobium</i>)	Endangered / None	Found primarily in waters of Californian	No suitable waters habitat exists in the project area to support this species. This

Table V.M-1 (Continued)
Sensitive Species with Potential to Occur at the Project Area

Species: Common Name (Scientific Name)	Sensitivity Status Federal/State	Typical Habitat	Potential for Occurrence
<i>newberryi</i>)		coastal lagoons, estuaries, and marshes.	species would not be present in the project area.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	Threatened / None	This species breeds above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Breeding habitat also occurs to a lesser extent bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars.	No suitable breeding or foraging habitat exists in the project area for this species. The project area is developed and does not contain any of the essential elements for this species survival. It would not occur in the project area
<i>Source: CNDDDB report for Hunters Point (448A), USGS 7.5-Minute Quad, CNDDDB report for San Francisco North (466C), USGS 7.5-Minute Quad, and CNDDDB report for San Francisco South (448B), USGS 7.5-Minute Quad.</i>			

Based on examination of the results of the CNDDDB search, it is improbable that any of the aforementioned species occur on or in the immediate vicinity of the project area. The project area, located in a highly developed urban area, does not support any of these species' habitat requirements. Additionally, recent occurrences are lacking for the majority of the species on the Hunters Point, San Francisco North, and San Francisco South USGS quads.

Riparian Habitats and Sensitive Natural Communities

Urban development and human activities within the project area limit its value to wildlife species. Most wildlife species in the area are common to urban habitat. These species include: black rat, Norway rat, house mouse, rock dove (pigeon), European starling, house finch, and English sparrow. Street trees provide resting places for common bird species, but the constant vehicle and pedestrian traffic limits their use for nesting.¹

¹ U.S. Department of Transportation Federal Transit Administration and the City of San Francisco Planning Department, Final Environmental Impact Statement and Final Environmental Impact Report for the Third Street Light Rail Project, SCH. #96102097, November 1998, at page 4-68.

The invertebrates, fish, and water-dependent species present within the project area are common to the margins of San Francisco and San Pablo Bays. The estuarine habitat of the Mission Creek channel, located within the project area on the eastern waterfront, which drains to the east into China Basin, is mostly degraded, and the shoreline habitat within the project area is limited in extent. The Mission Bay Conservancy consistently observes high numbers of grebes, cormorants, herons, and species of diving ducks, indicating that the channel may provide important fish habitat. Pacific herring spawn near the mouth of the channel during the months of December through March. In addition to their economic value, herring are an important species in the ecology of San Francisco Bay because herring, along with sardines, are a primary source of food for salmon and other sport fish. No threatened or endangered species are known to inhabit the water of the San Francisco Bay estuary in the project vicinity.²

A wide range of bird species are present at the project area, although the numbers of most species are low. Most of the bird species observed are present in the San Francisco Bay during fall and winter, and leave in early spring to breed elsewhere. Two species, the brown pelican and the peregrine falcon, listed as endangered species, have been spotted in the Mission Creek channel. Neither of these species (or any other birds) have been observed to nest in the area.³ The eastern shore of the Bay provides minimal support for wildlife and is not capable of sustaining significant populations of species observed because of the lack of suitable breeding habitat and contamination from past sewage overflows, historical fill activities, and hazardous land uses. The project area does not support any wildlife corridors, riparian habitats, or sensitive natural communities.

Wetlands

Wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed by the U.S. Army Corps of Engineers (ACE) and the U.S. Fish and Wildlife Service (USFWS), which generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation. The ACE and the California Department of Fish and Game (CDFG) have jurisdiction over modifications to stream channels, rivers banks, lakes and other wetland features.⁴

² *Id.* at page 4-68.

³ *Id.* at page 4-68.

⁴ *Id.* at page 4-69.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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;
- 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;
- 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;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- 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 Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Biological resources impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan may result in impacts to wetland habitat, street trees, and nesting birds, although it is expected that site-specific environmental evaluation will be conducted for site-specific individual projects. Construction activities within or near shoreline portions of the Bayview Hunters Point plan area may directly impact wetlands, mud flats, or salt marsh habitats in a variety of

ways, including placement of fill, structures, or alteration of habitat. Any activities within these areas may result in loss of sensitive habitats or species that use these habitats. According to the Bayview Hunters Point Redevelopment Plan EIR, impacts to these sensitive habitats may be considered potentially significant. To avoid and minimize impacts to sensitive wetland habitats, a wetland delineation and habitat mapping survey shall be completed for all shoreline areas proposed for construction as a result of the Bayview Hunters Point Redevelopment Plan.

Construction activities associated with the Bayview Hunters Point Redevelopment Plan will generally be limited to existing paved streets or disturbed areas. Street trees are typically not considered sensitive species. However, there is potential that damage to existing street trees and other mature vegetation (as a result of injury to roots, trunk, or branches) may occur at any construction site. Because they are regulated by the Urban Forestry Ordinance, damage to, or removal of, existing mature trees may be considered a potentially significant impact. Removal of street trees and other landscape vegetation may also result in disturbance or mortality of adult or juvenile resident bird species. Because of the high levels of development and human activity in Bayview Hunters Point, only common urban bird species are likely to nest in street trees. According to the Bayview Hunters Point Redevelopment Plan EIR, no special-status species are known to nest within the Bayview Hunters Point plan area. Specific projects shall avoid damage to, or removal of, street trees to the extent possible. Removal of street trees shall only occur after obtaining the appropriate permit from the San Francisco Department of Public Works. Although this impact is considered to be less than significant in the Bayview Hunters Point Redevelopment Plan EIR, the removal of trees, shrubs, or weedy vegetation should avoid the February 1 through August 31 bird nesting period to the extent possible. If no vegetation or tree removal is proposed during the nesting period, no surveys are required. For these reasons, removal of street trees and landscape vegetation will not surpass the significance criteria for this Plan and were considered to be a less than significant impact under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, future development in the Rincon Hill plan area resulting from the Rincon Hill Plan may result in disturbance to, or direct mortality of, common plant and wildlife species. There are several separate small undeveloped open space areas within the Rincon Hill plan area, all in the vicinity of freeway ramps in an area bounded by Second, Folsom, Beale, and Bryant Streets. They occur in an altered, non-natural state, dominated by non-native ruderal, and landscape vegetation. No special status plant or animal species are expected to utilize these remnant open space lands. Direct impacts to common plant and wildlife species include displacement and potential mortality of resident species, and may occur either during construction or as a result of subsequent occupation of a project. According to the Rincon Hill Plan EIR, no special status species will be affected.

Development in the Rincon Hill plan will not affect rare or endangered species of plants or animals, species identified as candidates for listing, or species under provision of the Migratory Bird Treaty Act (e.g., burrowing owls and nesting raptors). The Plan is not expected to affect sensitive wildlife habitats

such as riparian lands, wetlands, bays, estuaries, marshes, or habitats for rare or endangered species. Nor is it expected to interfere substantially with the movement of any resident or migratory wildlife species. Therefore, effects on biological resources were not considered to be significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, because future development projects that will be expected to occur subsequent to adoption and implementation of the Eastern Neighborhoods Rezoning and Area Plans will largely consist of new construction of housing in these heavily built-out former industrial neighborhoods, there will be little in the way of loss of vegetation or disturbance of wildlife other than common urban species. Furthermore, the Eastern Neighborhoods Rezoning and Area Plans will not result in substantial changes in zoning, height limits, or land use in large portions of the Eastern Neighborhoods, including Potrero Hill and a portion of the Mission District. Therefore, the Plans will not affect any threatened, rare or endangered animal or plant life or habitat, nor will it interfere with any resident or migratory species, nor will it affect any threatened, rare, or endangered species or habitat. The Eastern Neighborhoods Rezoning and Area Plans were not considered to have any significant effects related to biological resources under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, implementation of the Market and Octavia Neighborhood Plan, development of the area or the Central Freeway parcels, and implementation of the proposed public street improvements will not affect, or substantially diminish, plant or animal habitats. The Market and Octavia Neighborhood Plan will not interfere with any resident or migratory species, nor will it require removal of substantial numbers of mature, scenic trees. Project-specific open space that will be expected to occur with implementation of the Market and Octavia Neighborhood Plan include plants and street trees appropriate for the urban landscape of the Market and Octavia Neighborhood. The Market and Octavia Neighborhood Plan, development of the Central Freeway parcels, and the public street and open space improvements were therefore not considered to have a significant impact on biological resources under the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to biological resources due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts,

and independent CEQA review within the “other areas”. Potential biological resources impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to biological resources and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to adversely affect any candidate, sensitive, or special status species; adversely affect riparian habitat or sensitive natural community; interfere with the movement or migration of fish or wildlife species; conflict with local policies or ordinances protecting biological resources; or conflict with an adopted conservation plan would be less than significant.

In addition, an EIR is currently being prepared for the Natural Areas Management Plan.⁵ The Significant Natural Resource Areas Management Plan (SNRAMP) will provide the framework for long-term management of Natural Areas in the City, which will be used by the resource managers over the next 20 years. The 31 Natural Areas are scattered mostly throughout the central and southern portions of the City and constitute approximately four percent of the total City area. They range in size from less than one acre (i.e., 15th Avenue Steps) to almost 400 acres (i.e., Lake Merced).

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to biological resources. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to biological resources would be less than significant.

⁵ *The Notice of Preparation of an Environmental Impact Report for the Natural Areas Management Plan was released on April 22, 2009.*

Cumulative Impacts

Cumulative impacts related to biological resources are generally localized and affect the immediate vicinity surrounding development within the EZ. The geographic context for cumulative biological resource impacts is the project area. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to biological resources. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to biological resources. The contribution of potential impacts from the proposed project to the cumulative biological resource impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

N. GEOLOGY AND SOILS

INTRODUCTION

This section addresses potential project impacts related to rupture of an earthquake fault, seismic ground shaking, ground failure, and landslides; substantial soil erosion; the stability of soil; the risks of expansive soil; adequate support of septic tanks; and topography and unique geologic or physical features. The assessment is based on the general geologic setting of the project area. Geologic literature reviewed includes documents published by the California Geological Survey, U.S. Geological Survey, and U.S. Department of Agriculture. Identification of geotechnical constraints is based on anticipated conditions, relying on regional scale geologic mapping.

ENVIRONMENTAL SETTING

Geologic Setting

Regional Geology

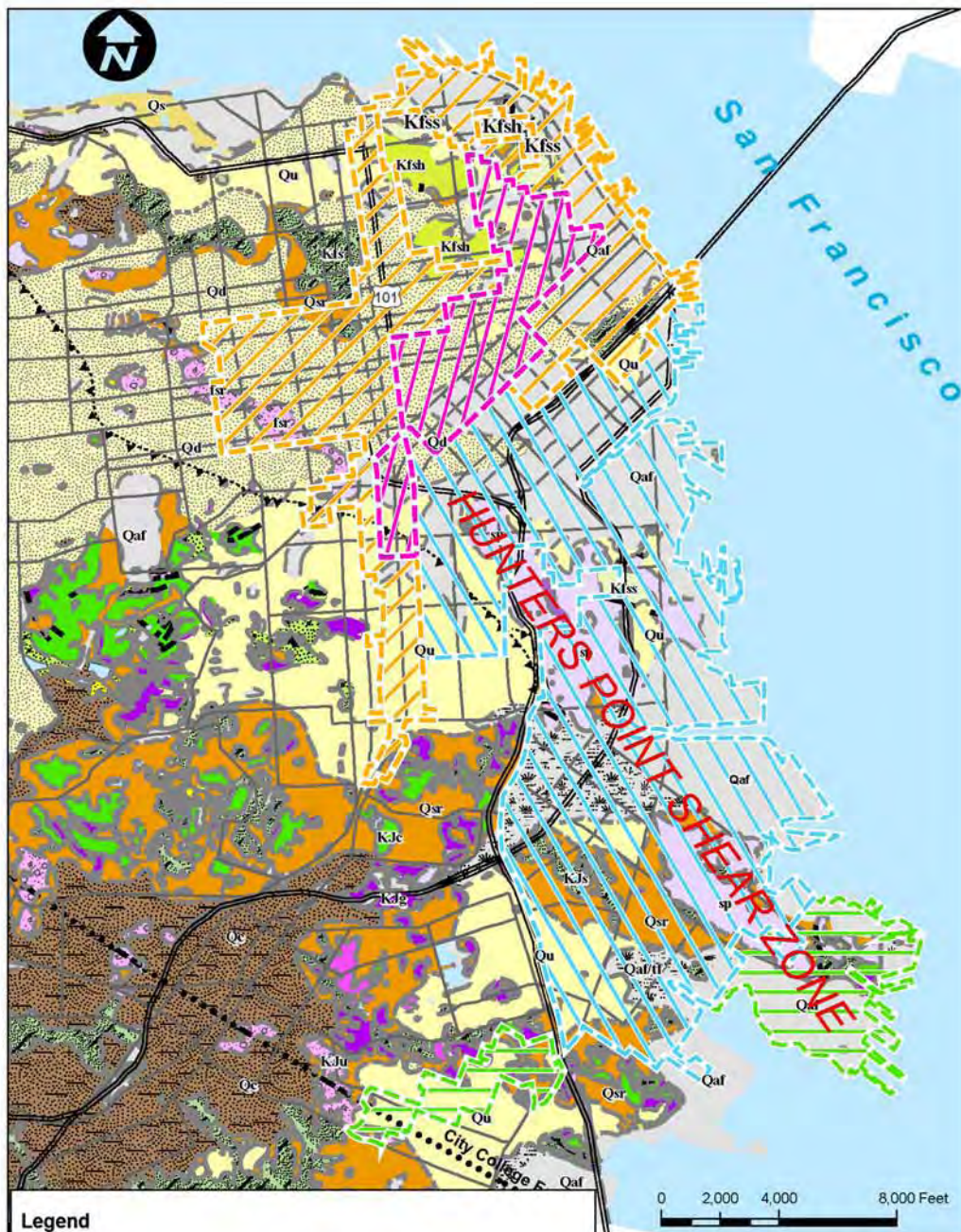
The project area is within the San Francisco Bay Area, which is located within the Coast Ranges Geomorphic Province. Past episodes of tectonism have folded and faulted the bedrock, creating the regional topography of the northwest trending ridges and valleys characteristic of the Coast Ranges Geomorphic Province. The San Francisco Bay and vicinity occupy a structurally controlled basin within the province. Late Pleistocene and Holocene sediments (less than 1 million years old) were deposited in the basin as it subsided. The Franciscan Complex is a mixed assemblage of lithologically distinct bedrock types that are interbedded and tectonically disturbed. The bedrock is Cretaceous to Jurassic in age (65 to 165 million years old).

Local Geology

The local geology of the project area is presented on Figure V.N-1. The project area is primarily underlain by Franciscan Complex bedrock and surficial deposits such as dune sand and artificial fill. Surficial sedimentary deposits are found in the project area are primarily Holocene and Pleistocene artificial fill, dune sand, slope and ravine fill and undifferentiated Quaternary sedimentary deposits, and are described below.

- Artificial fill (Qaf) in the area consists of man made deposits of varying character, consisting of clay, silt, sand, rock fragments, organic material, and (or) man made debris. In the vicinity of Islais Creek and South Basin artificial fill is mapped over tidal flat deposits (Qaf/TF) and consists of clay, silt, sand, rock fragments, organic matter, and man-made debris that are placed over tidal flats.

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Legend

San Francisco Enterprize Zone

- Eligible Zone
- Commercial Addition
- Industrial Addition
- Industrial Extension

Geologic Structure

- contact, approx. located
- contact, certain
- contact, concealed
- fault, approx. located
- fault, certain
- fault, concealed

Surficial Deposits

- Qaf - Artificial Fill
- Qaf/lf - Artificial Fill over Tidal Flat
- Qd - Dune Sand
- Ql - Landslide Deposits
- Qsr - Slope Debris and Ravine Fill
- Qu - Undifferentiated Surficial Deposits
- Qc - Colma Formation

Franciscan Complex

- Kfs, KJs - Sandstone and Shale
- Kfss - Massive sandstone
- Kfsh - Thin bedded sandstone and shale
- Kjc - Chert
- KJg, Jfg - Greenstone
- Jspm - Massive Serpentinite
- KJu, fsr - Melange
- sp - Serpentinite

Sources: USGS MF-2337, Geologic map and map database of parts of Marin, San Francisco, Alameda, Contra Costa, and Sonoma Counties, California: Digital database Version 1.0; AND Preliminary Geologic Map of the San Francisco South 7.5-Minute Quadrangle and part of the Hunters Point 7.5-Minute Quadrangle, San Francisco Bay Area, California, by M.G. Bonilla, 1998, USGS Open File Report 98-354.

Figure V.N-1
Geology Map

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- Dune sand (Qd) consisting of loose to soft, well sorted sand deposits.
- Slope debris and ravine fill (Qsr) consists primarily of angular poorly sorted sediments with abundant rock fragments in a sand, silt, and clay matrix; generally light yellow to reddish-brown.
- Undifferentiated surficial deposits (Qu) found in the project area include beach sand, marine deposits, artificial fill, alluvium, landslides, and, in the South San Francisco quadrangle, some Colma Formation.
- Franciscan Complex rocks (Jurassic and Cretaceous in age) underlying the project area consist of sandstone, shale, serpentinite, mélangé, and minor greenstone outcrops and are described below.
- Serpentinite (sp) (Jurassic) is the most abundant Franciscan Complex unit in the project area and includes relatively fresh ultramafic rock as lenses and irregularly shaped masses, largely within and along boundaries of the mélangé (fsr); most of the serpentinite in the area displays a prominent shear fabric. In the project area the serpentinite masses/blocks are part of the Hunters Point Shear Zone (HPSZ), an intra-Franciscan structural feature that consists of regionally extensive serpentinite bodies and shale matrix mélangé, crossing the north eastern portion of the San Francisco Peninsula in northwest-southeast.
- Franciscan Complex sandstone units in the project area consist of Cretaceous interbedded sandstone, massive sandstone (Kfss), and thin-bedded sandstone and shale (Kfsh). Sandstone and interbedded shale, with minor conglomerate crops out in alternating sequence of largely medium-thick to very thick sandstone beds with generally minor interbedded shale and predominantly shale with interbedded thin to medium-thick sandstone beds. The massive sandstone unit is thick-bedded and massive graywacke sandstone interbedded with thin layers of fissile shale, fine-grained sandstone, and some thick conglomerate lenses. The thin-bedded sandstone and shale unit is predominantly interbedded and laminated shale and fine-grained sandstone with beds generally 5 to 13 cm thick.
- Small outcrops of greenstone are mapped near the southern portion of the project area and consist of pillow lavas and less abundant tuff, breccia, and intrusive basalt, diabase, and rare gabbro.
- Franciscan mélangé is mapped in small portions of the project area and consists of a tectonic mixture of variably sheared shale and sandstone which contains inclusions of greenstone, chert, graywacke, and their metamorphosed equivalents, plus exotic high-grade metamorphic rocks and serpentinite.

The project area extends through many areas of the City, primarily Fisherman's Wharf, North Beach, Chinatown, Downtown/Civic Center, Financial District, Western Addition, Haight, South of Market, South Beach, Mission Bay, Potrero, Mission District, Central Waterfront, Bayview Hunters Point, and

Visitacion Valley. As shown in Figure IV-2 in Section IV (Project Description), the project area includes the following four sectors: Eligible Zone, Commercial Addition, Industrial Addition, and Proposed Industrial Extension.

Eligible Zone

The Eligible Zone covers the Financial District and China Town, which have predominantly deposits of artificial fill, undifferentiated surficial deposits, and dune sands. Outcrops of Colma Formation and Chert are present near Chinatown. South of Market portions of the Eligible Zone have dune sands and artificial fill. The portion of the Eligible Zone that follows Van Ness Avenue south of Civic Center has deposits of dune sand, further south there are deposits of artificial fill and the southern portion of the Eligible Zone has undifferentiated surficial deposits.

Commercial Addition

The Commercial Addition covers a part of South Beach and South of Market areas. These areas have predominantly artificial fill, undifferentiated surficial deposits, and dune sands with outcrops of sandstone and shale. Fisherman's Wharf and North Beach areas of the Commercial Addition have deposits of artificial fill with outcrops of massive sandstone and thin bedded sandstone and shale at Telegraph Hill, Russian Hill, and Nob Hill. Along Van Ness Avenue, north of Market Street, there are deposits of dune sand and near the intersection of Van Ness Avenue and Geary Boulevard there are deposits of slope debris and ravine fill with sandstone and shale outcrops. The Western Addition and the Haight primarily have dune sands with large outcrops of mélange. The Commercial Addition continues in the vicinity of the Civic Center where there are deposits of dune sands, undifferentiated surficial deposits, and serpentine outcrops and covers a narrow corridor through the Mission District following Van Ness Avenue where there are predominantly undifferentiated surficial deposits with some serpentine outcrops. The southern end of the Commercial Addition follows the Mission Street encountering undifferentiated surficial deposits, greenstone, slope debris, and ravine fill.

Industrial Addition

The Industrial Addition covers the South Beach area, which is predominantly artificial fill. There are deposits of dune sand South of Market towards Van Ness Avenue. Due south in the Mission District, the Industrial Addition has deposits of artificial fill, undifferentiated surficial deposits, and outcrops of serpentine formation. The portion of the Potrero Hill District covered by the Industrial Addition has deposits of artificial fill, undifferentiated surficial deposits, large outcrops of serpentinite and smaller outcrops of massive serpentinite. The south eastern portion of the Potrero Hill District has slope debris and surficial deposits interspersed in the serpentinite. The Central Waterfront has deposits of artificial fill, undifferentiated surficial deposits with outcrops of massive sand stone. The northern portion of Bayview has primarily artificial fill near the Bay, while further inland there is artificial fill over tidal flat. The southern portion of Bayview from India Basin to South Basin has serpentinite outcrops west of India Basin with slope deposits and ravine fill, sandstone and shale. Further inland there are undifferentiated

surficial deposits. Inland from South Basin are deposits of artificial fill, and artificial fill over tidal flat, and slope debris and ravine fill with outcrops of sandstone and shale.

Proposed Industrial Extension

The Proposed Industrial Extension covers Hunters Point and a portion of Visitacion Valley. At Hunters Point there is predominantly artificial fill with outcrops of greenstone, chert, slope debris, and ravine fill and landslide deposits. In the Visitacion Valley area there are primarily undifferentiated surficial deposits with outcrops of greenstone, chert, sandstone and shale, and slope debris and ravine fill.

Slope Stability

Slope failures include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces, such as landslides, rock-fall, debris slides, and soil creep. Slope stability can depend on a number of complex variables including the geology, structure, and amount of groundwater, as well as external processes such as climate, topography, slope geometry, and human activity. The steeper the slope and/or the weaker the rock, the more likely the area is susceptible to landslides. Areas with steep slopes and thick colluvium would be more susceptible to debris flows. Areas susceptible to slope failures and instability can be identified on maps showing the steepness of slopes¹ when used in combination with a geologic map. Another indication of unstable slopes is the presence of old or recent landslides or debris flows. Landslides and other slope failures may occur on slopes of 15 percent or less; however, the probability is greater on steeper slopes that exhibit old landslide features such as scarps, slanted vegetation, and offset surfaces.

No landslides are mapped in the project area and the topography for most of the project area is relatively flat to gently sloping,² indicating that landslide hazards and slope instability issues are minor to nonexistent for most of the project area. Two areas with gentle to moderate slopes are located in the Potrero Hill District and along a portion of the Hunters Point neighborhood and may be susceptible to minor landslides or slope failures.

Soils

The soils underlying the project area reflect the underlying geologic units, the extent of weathering of the underlying geologic units, the degree of slope, and the degree of modification by man. The project area primarily located within developed urban land where the near surface soils have been extensively modified by construction of buildings, roads, and other impermeable structures, and by cut and fill for these structures. Based on soil mapping performed by the United States Department of Agriculture's Natural Resources Conservation Service, two main soils types are mapped on the project area: Urban

¹ *Graham and Pike, 1998.*

² *Bonilla, 1998; Blake et al, 2000, and CGS, 2000a.*

Land and Orthent soils.³ These soil types are found throughout the project area in varying mixes of the two to form soil complexes.

- **Urban land.** This unit consists of areas where more than 85 percent of the surface is covered by asphalt, concrete, buildings and other structures. This unit is used for homesite, urban and recreational development.
- **Urban land-Orthents, cut and fill complex with 0 to 5 percent slopes.** This unit is on alluvial fans and flood plains. The Urban land consists of areas that are covered by asphalt, concrete, buildings, and other structures. The material covered by these structures is similar to the Orthents. The Orthent soils consists of soils that have been cut and filled for urban development and in many areas the texture of the surface layers varies greatly due to grading or mixture with fill. They are well drained, nearly level, and runoff is slow, resulting in a slight hazard for water erosion. Excavation for roads and buildings increases the risk of erosion. The unit has few limitations when used for homesite and urban development.
- **Urban land-Orthents, reclaimed complex with 0 to 2 percent slopes.** This unit is primarily found in areas that were once part of San Francisco Bay and adjacent tidal flats. The Urban land consists of areas that are covered by asphalt, concrete, buildings, and other structures. The material covered by these structures is similar to the Orthents. The Orthent soils in this complex are made up of soil material, gravel, broken cement and asphalt, bay mud, and solid waste material and are very deep, poorly drained to somewhat poorly drained. Runoff is slow and hazard of water erosion is low. If the unit is used for urban and recreational development, the main limitations are the susceptibility of the soils to subsidence and the highly variable soil properties, including texture and permeability. A high water table is also a limitation in some areas.

Naturally Occurring Asbestos (NOA)

NOA refers to a variety of six fibrous materials. Chrysotile is the most common material of this type found in California and is a part of the serpentine mineral group. Serpentine and NOA are frequently encountered in areas of known as ultramafic rock units. As discussed previously serpentinite is the most abundant Franciscan Complex unit in the project area and includes relatively fresh ultramafic rock as lenses and irregularly shaped masses.

Expansive and Corrosive Soil

Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) due to variation in soil moisture content. Changes in soil moisture could result from rainfall, landscape

³ United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, Soil Survey of San Mateo County, Eastern Part, and San Francisco County, California (1991), website: <http://websoilsurvey.nrcs.usda.gov/app/>, accessed July 13, 2009.

irrigation, utility leakage, roof drainage, and/or perched groundwater. Expansive soils are typically very fine grained with a high to very high percentage of clay.

Corrosivity of soils is generally related to several key parameters: soil resistivity, presence of chlorides and sulfates, oxygen content, and pH. Typically, the most corrosive soils are those with the lowest pH and highest concentration of chlorides and sulfates. High sulfate soils are corrosive to concrete and may prevent complete curing reducing its strength considerably. Low pH and/or low resistivity soils could corrode buried or partially buried metal structures. Franciscan Complex shale generally weathers to clay, which can be expansive and corrosive to concrete and metal.

Erosion

The properties of soil which influence erosion by rainfall and runoff are ones which affect the infiltration capacity of a soil and those which affect the resistance of a soil to detachment and being carried away by falling or flowing water. Soils containing high percentages of fine sands and silt and that may have low in density are generally the most erodible. These soil types generally coincide with soils such as young alluvium and other surficial deposits. As the clay and organic matter content of these soils increases, the potential for erosion decreases. Clays act as a binder to soil particles, thus reducing the potential for erosion. However, while clays have a tendency to resist erosion, once eroded they are easily transported by water. Clean, well-drained, and well-graded gravels and gravel-sand mixtures are usually the least erodible soils. Soils with high infiltration rates and permeability reduce the amount of runoff. All three of the soil associations found in the project area have little to no potential for erosion due to the primarily level topography, which reduces or eliminates natural runoff; the moderate to moderately rapid permeability of the soils; the moderate clay content and abundant paved urban area not subject to erosion; and the high clay content of the soils derived from Franciscan units and bay sediments, which aids in binding the soil.

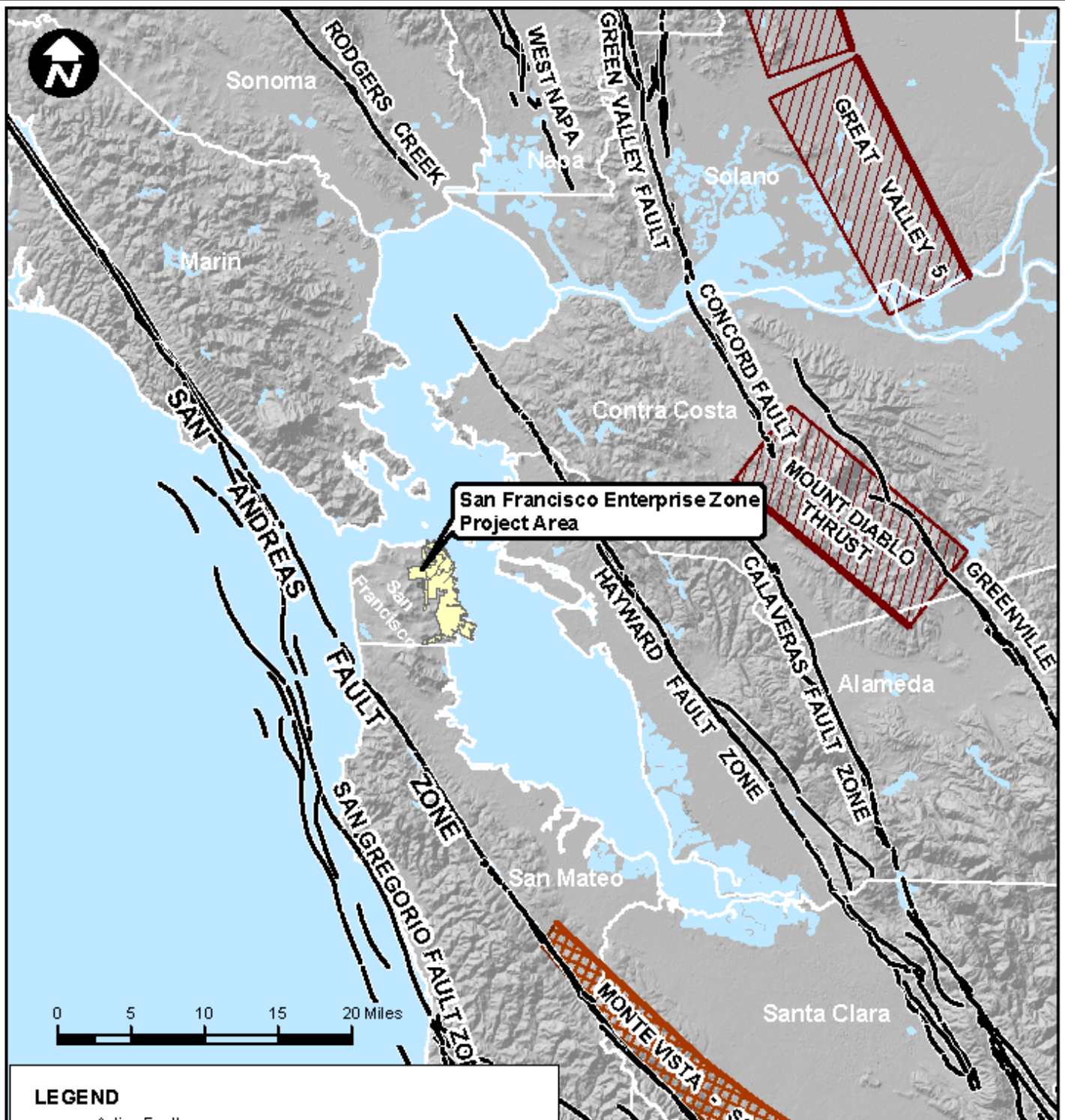
Seismic Setting

The San Francisco Bay area is situated in a seismically active region (California Building Code Seismic Zone 4) near the boundary between two major tectonic plates, the Pacific Plate to the southwest and the North American Plate to the northeast. Over the last 23 million years, about 200 miles of right-lateral slip has occurred along the San Andreas Fault Zone to accommodate the relative movement between these two plates.

As shown in Figure V.N-2, the San Francisco Bay Area and surrounding areas are characterized by numerous geologically young faults. These faults can be classified as historically active, active, sufficiently active, or inactive,⁴ as follows:

⁴ CGS, 1999.


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San Francisco Enterprise Zone Project Area

LEGEND

— Active Faults

 Reverse Fault (rectangle represents projection of the fault plane to the surface)

 Blind Thrust Faults (faults do not intersect the surface, mapped trace represents projection of upper edge of the fault to surface; rectangle represents projection of the fault plane to the surface)

Fault Data Sources: CGS 2005, Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, version 2.0, Bryant, W. A. (compiler) and Cao, et. al., 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, Appendix A - 2002 California Fault Parameters

Figure V.N-2
Fault Map

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Faults that have generated earthquakes accompanied by surface rupture during historic time (approximately the last 200 years) and faults that exhibit a seismic fault creep are defined as historically active.

- Faults that show geologic evidence of movement within Holocene time (approximately the last 11,000 years) are defined as active.
- Faults that show geologic evidence of movement during the Holocene along one or more of its segments or branches and if its trace may be identified by direct or indirect methods are defined as sufficiently active and well-defined.
- Faults that show direct geologic evidence of inactivity during all of Quaternary time or longer are classified as inactive.
- Although it is difficult to quantify the probability that an earthquake will occur on a specific fault, this classification is based on the assumption that if a fault has moved during the last 11,000 years, it is likely to produce earthquakes in the future.

The San Francisco Bay Area contains several active faults that could cause strong ground shaking in the project area. The San Andreas fault is the primary component in a complex system of right-lateral, strike-slip faults; including the San Andreas, San Gregorio-Seal Cove, Hayward, and Calaveras faults; collectively known as the San Andreas fault system. The San Andreas, San Gregorio-Seal Cove, Hayward, and Calaveras faults have produced measurable historic ground motion and movement. The San Andreas fault is capable of producing an earthquake of an estimated maximum magnitude of 7.9. This segment is estimated to have recurrence intervals on the order of 200 years. A summary of nearby active faults is shown in Table V.N-1.

Fault Rupture

Faults are geologic zones of weakness. Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Surface ruptures associated with the 1906 San Francisco earthquake extended for more than 260 miles with displacements of up to 21 feet. However, not all earthquakes result in surface rupture. The Loma Prieta earthquake of 1989 caused major damage in the San Francisco Bay Area, but the fault did not break the ground surface. Fault rupture almost always follows preexisting faults. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking.

No known active faults cross the project area and therefore hazards from surface fault rupture are unlikely.

**Table V.N-1
Active and Potentially Active Faults**

Fault	Distance ¹ from Project Area (miles)	Estimated Maximum Earthquake Magnitude	Historic Earthquakes	
			Year	Magnitude
San Andreas (1906 rupture)	5.8 ²	7.9 ²	1906	7.9
San Andreas (Peninsula)	5.8	7.2	1838	6.8
			1898	6.2
			1989	7.1
San Andreas (North Coast)	7.3	7.5	NA	NA
San Gregorio-Seal Cove	9.2	7.4	NA	NA
Hayward	12.2	6.9	1868	6.8
Rodgers Creek	21.4	7.0	NA	NA
Calaveras	23.7	6.9	1861	5.3
			1955	5.5
			1979	5.9
			1984	6.1
			2007	5.4
Monte Vista-Shannon	25.7	6.7	NA	NA
Concord-Green Valley	25.8	6.7	NA	NA

Sources:
1 Data determined from EQFAULT (Blake, 2000)
2 1906 rupture event assumes rupture of North Coast, Peninsula, and Santa Cruz Mtns. segments to San Juan Bautista. Maximum magnitude based on 1906 average 5 m displacement (WGCEP, 2003; Petersen et al., 1996).

Ground Shaking

The structures at the project area will likely experience severe ground shaking from a large earthquake on a nearby fault during its lifetime. An earthquake is classified by the amount of energy released, which traditionally has been quantified using the Richter scale. Seismologists have more commonly begun using a moment magnitude (Mw) scale because it provides a more accurate measurement of the size of major and great earthquakes. For earthquakes of less than Mw 7.0, the moment and Richter magnitude scales are nearly identical. For earthquake magnitudes greater than Mw 7.0, readings on the moment magnitude scale are slightly greater than a corresponding Richter magnitude.

The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between a particular area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding that area. Earthquakes occurring on faults closest to the project area would most likely generate the largest ground motions.

A review of historic earthquake activity from 1800 to 2005 indicates that 13 earthquakes of magnitude Mw 6.0 or greater have occurred within and near the project area within this time frame. A summary of significant and/or damaging earthquakes is presented in Table V.N-2. There have also been an additional

25 earthquakes with magnitudes between Mw 5.5 and Mw 6.0 in this area during this time period, including numerous aftershocks of larger earthquakes.

**Table V.N-2
Significant Historic Earthquakes**

Date	Earthquake Magnitude¹	Name, Location, or Region Affected	Associated Fault	Comments²
June 1838	Assumed between 6.8 and 7.4	San Francisco Area	San Andreas	This earthquake is associated with probable rupture of the San Andreas fault from Santa Clara to San Francisco (approximately 37 miles). Walls were cracked at Mission Dolores and in Monterey.
October 8, 1865	6.5	Santa Cruz Mountains	San Andreas	Caused severe damage in New Almaden, Petaluma, San Francisco, San Jose, Santa Clara, and Santa Cruz resulting in \$500,000 in property damage. Ground cracks, heaving, and subsidence were noted in several areas.
October 21, 1868	6.8	Hayward	Hayward	Felt throughout northern California and Nevada. Resulted in 30 deaths and \$300,000 in property damage. Occurred on the Hayward fault with rupture from Berkeley to Fremont. Caused severe damage in the East Bay and San Francisco, destroyed. Destroyed Mission San Jose. USGS estimates Mw 7.0.
June 20, 1897	6.2	Gilroy	Calaveras	Felt from Woodland to San Luis Obispo. Resulted in building collapse in the Santa Clara Valley. Fissures were noted on the Calaveras fault southeast of Gilroy.
April 18, 1906	7.8	San Francisco Earthquake, San Francisco	San Andreas	This earthquake and the resulting fires caused approximately 3,000 deaths and \$524 million in damage (\$24 million from the earthquake alone). Destruction from this earthquake occurred at distances of up to 350 miles from the epicenter.
July 1, 1911	6.4	Morgan Hill	Calaveras	Located on the Calaveras fault, caused substantial damage in Gilroy and the Santa Clara Valley. Felt as far away as Reno, Nevada.
January 24, 1980	5.8	North of Livermore Valley	Greenville	Occurred on the Greenville fault with surface rupture of approximately nine miles. Resulted in numerous injuries and \$11.5 million in property damage (primarily at Lawrence Livermore Laboratory).

Table V.N-2 (Continued)
Significant Historic Earthquakes

Date	Earthquake Magnitude¹	Name, Location, or Region Affected	Associated Fault	Comments²
April 24, 1984	6.2	Morgan Hill Earthquake, Morgan Hill	Calaveras	Earthquake was felt from San Francisco to Bakersfield and was located near the epicenter of the 1911 earthquake in Morgan Hill. Resulted in injuries and approximately \$8 million in property damage.
October 17, 1989	6.9	Loma Prieta Earthquake, Santa Cruz Mountains	San Andreas	Largest earthquake to occur on the San Andreas fault since 1906. Resulted in 63 deaths, more than 3,000 injuries, and an estimated \$6 billion in property damage. Severe damage occurred from San Francisco to Monterey and in the East Bay, and included damage and destruction of buildings, roads, bridges, and freeways.

Notes:
^a Earthquake magnitudes and locations before 1932 are estimated by Real et al., 1978, and Topozada et al., 1981 and 1982 based on reports of damage and felt effects. Magnitudes reported using the Richter scale.
^b Earthquake damage information primarily compiled from the National Earthquake Information Center and the Berkeley Seismological Laboratory websites. Estimates of property damage values are in dollars valued to the year of damage.

The intensity of earthquake-induced ground motions can be described using horizontal peak ground accelerations, represented as a fraction of the acceleration of gravity (g). The interactive United States Geological Survey (USGS) Earthquake Ground Motion Parameter Java Application⁵ provides data to estimate horizontal peak ground accelerations in California. Taking into consideration the uncertainties regarding the size and location of earthquakes and the resulting ground motions that can affect a particular site, the map depicts peak ground accelerations with a 10 percent probability of being exceeded in 50 years, which equals an annual probability of one in 475 of being exceeded each year. Based on this data, the horizontal peak ground acceleration at the site is estimated to be to be between approximately 0.5g to 0.6g for an earthquake having a 10 percent probability of exceedance in 50 years.

Liquefaction

Liquefaction is a phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced, strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude of earthquakes likely to affect the site. Saturated, unconsolidated silts, sands, silty sands, and gravels within 40 feet of the ground surface are most susceptible to liquefaction.⁶ Liquefaction-related phenomena

⁵ USGS, 2008a.

⁶ CGS, 2000a.

include vertical settlement from densification, lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects.

According to hazard maps published by the California Geological Survey,⁷ geologic and ground-water conditions conducive to liquefaction are widespread in the San Francisco area near the coastal areas underlain by saturated young sedimentary units and artificial fill. In addition, the opportunity for strong ground shaking is high because of the many nearby active faults. Ground failure associated with liquefaction has occurred during historical earthquakes in San Francisco. In the City, the mapped liquefaction hazard zones are concentrated south of Market Street, in the Mission District, and at Hunters Point, primarily in areas of artificial fill along the waterfront, as shown in Figure V.N-3. Liquefaction-related phenomena may occur in areas with loose granular sediments where depth to ground water is 40 feet or less during moderate to great earthquakes. Areas within the project area that have been mapped as having liquefaction potential are North Beach, Fisherman's Wharf, the eastern portion of the Financial District including the eastern slopes of Nob Hill, South of Market, South Beach, portions of the Mission District, the Central Waterfront, Bayview, and Hunters Point.

Lateral Spreading

Of the liquefaction hazards, lateral spreading generally causes the most damage. This is a phenomenon where large blocks of intact, non-liquefied soil move downslope on a liquefied substrate of large aerial extent.⁸ The mass moves toward an unconfined area, such as a descending slope or stream cut bluff, and can occur on slope gradients as gentle as one degree. Although the project area is relatively flat, it does border along unconfined areas near the waterfront, along China, Central, and South Basins, and Islais Creek where liquefaction hazard zones are mapped, lateral spreading may occur in these areas in the event of a large earthquake.

Earthquake-Induced Settlement

Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid rearrangement, compaction, and settling of subsurface materials (particularly loose, uncompacted, and variable sandy sediments). Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Areas underlain by poorly consolidated and/or poorly mixed fill with varying materials near the waterfront areas may be susceptible to settlement during moderate to great earthquakes.

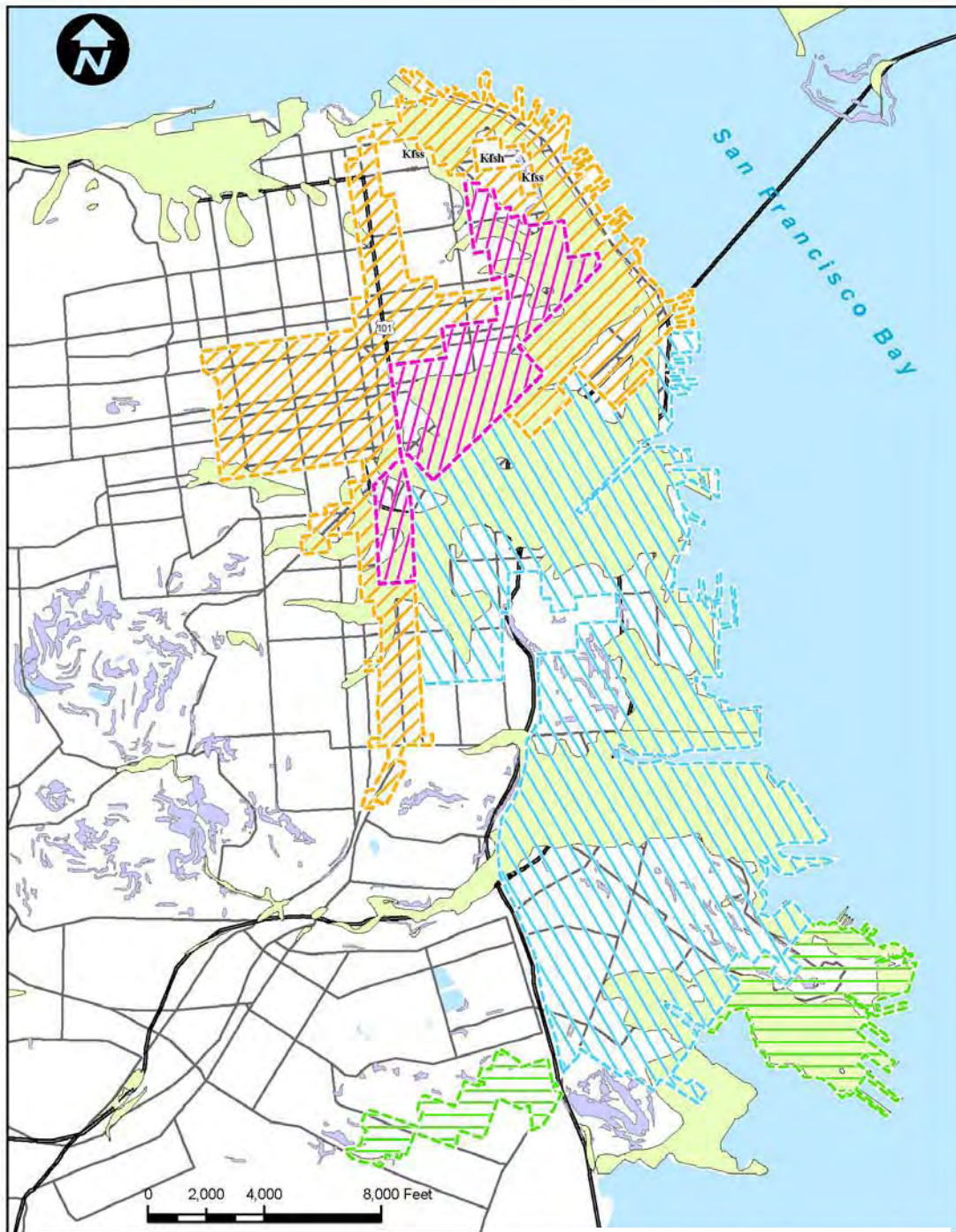
Seismic Slope Instability/Ground Cracking

Earthquake motions can also induce substantial stresses in slopes, causing earthquake induced landslides or ground cracking when the slope fails. Earthquake-induced landslides can occur in areas with steep

⁷ CGS, 2001.

⁸ Youd et al., 1978; Tinsley et al., 1985.

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California Geological Survey, November 2001

Legend

San Francisco Enterprise Zone

-  Eligible Zone
-  Commercial Addition
-  Industrial Addition
-  Industrial Extension

Seismic Hazard Zone

-  Seismic Liquefaction Hazard Zone
-  Seismic Landslide Hazard Zone

Source: Seismic Hazard Zone Map, City and County of San Francisco, California Geological Survey, November 2001.

Figure V.N-3
Seismic Hazard Zone

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slopes that are susceptible to strong ground motion during an earthquake. The 1989 Loma Prieta earthquake triggered thousands of landslides over an area of 770 square miles. According to hazard maps published by CGS,⁹ most of the project area is not located in an area where landslide movement has previously occurred, nor do local topographic conditions indicate a significant potential for permanent ground displacements due to earthquake-induced landslides. Two areas with gentle to moderate slopes are located in the Potrero Hill District and along Hunters Point with small pockets of mapped CGS landslide hazard zones,¹⁰ and may be susceptible to earthquake induced landslides or slope failures.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - 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.)
 - Strong seismic ground shaking;
 - Seismic-related ground failure, including liquefaction; or
 - Landslides.
- Result in substantial soil erosion or the loss of topsoil;
- 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;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property;
- 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; or
- Change substantially the topography or any unique geologic or physical features of the site.

⁹ CGS, 2001.

¹⁰ *Ibid.*

Impact Evaluation

New development in the City of San Francisco is subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to geology and soils on a case-by-case basis as discussed below.

Groundshaking

Development is required to conform to the San Francisco Building Code, which includes seismic safety performance standards that apply to all new construction in the City. The San Francisco Department of Building Inspection (DBI) could, in its review of building permit applications, require the project sponsor to prepare a geotechnical report pursuant to the State Seismic Hazards Mapping Act. The report would assess the nature and severity of the ground shaking hazard(s) on the site and recommend project design and construction features that would reduce the hazard(s). All new construction within the project area would be subject to the permitting requirements of DBI to ensure compliance with applicable laws and regulations. As part of this permitting process, the final building plans would be reviewed by DBI. In reviewing building plans, DBI refers to a variety of information sources to determine existing hazards and assess requirements for reducing or avoiding those hazards. Sources reviewed include maps of Special Geologic Study areas and known landslide areas in San Francisco, as well as the building inspectors' working knowledge of areas of special geologic concern. If the need were indicated by available information, DBI would require that additional site-specific soils reports be prepared by a California-licensed geotechnical engineer prior to construction. Therefore, potential damage to structures from groundshaking on the sites of subsequent development projects that could be undertaken pursuant to the proposed zoning controls would be alleviated through the DBI requirement for a geotechnical report and review of the building permit application pursuant to DBI implementation of the Building Code.

Groundshaking could have particularly severe consequences for any unreinforced masonry buildings in the project area that have not been retrofitted, demolished or exempted from the upgrades required by Chapter 16c, Section 1604B of the San Francisco Building Code. These unreinforced masonry structures have a high potential for structural failure during earthquake events and present a substantial hazard to people exposed to falling debris. However, exposure of people to falling debris from unreinforced masonry buildings was substantially reduced between 1992 and 2006. Furthermore, to the extent that the proposed zoning controls would encourage reuse of older structures as part of subsequent development projects, such projects would generally involve seismic strengthening, which would decrease the risk of groundshaking, compared to existing conditions, to these structures and their occupants. Other subsequent development projects would be expected to result in the demolition of some older buildings and their replacement with newer structures designed and built in accordance with seismic safety requirements of current building codes. This, too, would reduce the relative risk of groundshaking in the project area.

Liquefaction

DBI, in its review of the building permit application, would require the project sponsor to prepare a geotechnical report pursuant to the State Seismic Hazards Mapping Act. The report would assess the nature and severity of the hazard(s) on the site and recommend project design and construction features that would reduce the hazards(s). Structures built in areas of liquefaction hazard must be designed and built to compensate for the risk that, in the event of an earthquake, the liquefiable soil will lose its bearing capacity, resulting in settlement and potential structural failure of buildings not adequately supported. Therefore, structures developed in such areas must have foundations that gain support on competent soil beneath the liquefiable layer. Typically, this requires the use of driven piles, drilled piers, or other means of gaining support deep below the actual building bottom. To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when DBI reviews the geotechnical report and building plans for a potential development project, it would determine necessary engineering and design features for the project to reduce potential damage to structures from groundshaking and liquefaction. Therefore, potential damage to structures from liquefaction hazards would be alleviated through the DBI requirement for a geotechnical report and review of the building permit application pursuant to its implementation of the Building Code.

Earthquake-Induced Landslides

DBI, in its review of the building permit application, would require the project sponsor to prepare a geotechnical report pursuant to the State Seismic Hazards Mapping Act. Depending on the findings, sponsors of such projects could be required to undertake slope stabilization as part of foundation design, potentially including construction of retaining walls, installation of drilled piers, grade beams, and soil anchors, or other engineering features. To ensure compliance with all San Francisco Building Code provisions regarding structural safety, when DBI reviews the geotechnical report and building plans for a proposed project, it would determine necessary engineering and design features for the project to reduce potential damage to structures from earthquake-induced landslides. Therefore, potential damage to structures from earthquake-induced landslide hazards would be alleviated through the DBI requirement for a geotechnical report and review of the building permit application pursuant to its implementation of the Building Code.

Soil Erosion and Loss of Topsoil

Development involving extensive grading could increase the potential for erosion and loss of top soil unless appropriate precautions are taken during construction. However, measures to control post-construction erosion would be specified in the Stormwater Pollution and Prevention Plans prepared for each project.

The Building Code specifies standards for determining the expansive characteristics of soil and also specifies expansion indexes for the soil. Development that is located on soil with an expansion index greater than 20 requires a geotechnical investigation and the report for this investigation would need to

include a recommended foundation type and design criteria including bearing capacity, provisions to protect against the effects of liquefaction and soil strength, and effects of adjacent loads. The total and differential settlement that could occur would be provided in the geotechnical report, which would also detail the extent to which fill at the site would be excavated and/or recompacted to account for any soil settlement. The reports would be based on a sufficient analysis of soils conducted by a qualified geotechnical engineer or geologist and include appropriate soils, foundation, and structural engineering to adequately account for any differential settlement or expansive soils underlying the site.

Ground Failures

The Building Code contains provisions which require that grading on slopes of greater than 2:1, or where cut sections will exceed ten vertical feet, must be done in accordance with the recommendations of a soil engineering report, which would be required by DBI for any subsequent development project proposed and implemented pursuant to the proposed zoning controls that is located on such steep slopes. Furthermore, because the vast majority of Potrero Hill would remain unchanged as to zoning and height and bulk, the proposed rezoning would not promote substantial new development on the steepest portions of the project area.

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Geology and soils impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, there is no evidence to indicate that Bayview Hunters Point is located on identified active faults. Therefore, impacts due to fault rupture from a future earthquake were considered unlikely and were considered to be a less than significant impact under the Bayview Hunters Point Redevelopment Plan EIR.

During moderate to severe ground shaking, the Bayview Hunters Point plan area may be exposed to lateral and vertical forces that may cause damage to structures, unless structures were designed to withstand high levels of ground shaking. There is a comprehensive regulatory environment in place to ensure the risks to people and property are managed to the extent practical. At the local level, conformance to the San Francisco Building Code is required, which includes seismic safety performance standards that apply to all new construction in the City. As discussed above, potential damage to structures from ground shaking in the Bayview Hunters Point plan area were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR through the DBI requirement for a geotechnical report and review of the building permit application pursuant to its implementation of the San Francisco Building Code.

Lower-lying areas are underlain by artificial fill and are susceptible to liquefaction during a seismic event. When the DBI reviews the geotechnical report and building plans, as described above, it also determines necessary engineering and design features to reduce potential damage to structures from liquefaction. Therefore, potential damage to structures from liquefaction will be mitigated to less than significant levels under the Bayview Hunters Point Redevelopment Plan EIR.

The upland areas of the Hunters Point Shoreline and Candlestick Point Activity Nodes have slopes with the potential for landslides. Earthquake-induced landslides were considered to have a less than significant impact in these areas under the Bayview Hunters Point Redevelopment Plan EIR because prior to issuance of any building permit for upland, hillside areas in the Hunters Point Shoreline and Candlestick Point Activity Nodes, a site-specific geotechnical study identifying landslide hazard prone areas and engineering recommendations to mitigate potential risks shall be submitted to the DBI.

Inside San Francisco Bay, tsunami waves will be significantly attenuated. The impact from a tsunami wave may temporarily raise the water levels in the lower-lying areas of the activity nodes. Given the rarity of such events and the relatively small rise in water levels that may be experienced along the western shorelines of the Bay, impacts resulting from tsunamis were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Some structures, including older unreinforced masonry buildings, will generally have a higher risk of damage or collapse during an earthquake than newer buildings because their construction usually creates an unfavorable combination of stiffness, brittleness, and low tensile strength in key structural members. Because of the high ratio of older buildings in the Bayview Hunters Point plan area and the high probability of major earthquakes on nearby active faults, seismically upgrading existing structures, or replacing them with new structures built to San Francisco Building Code standards, will improve the anticipated overall seismic performance, which was considered a benefit of the Bayview Hunters Point Redevelopment Plan under the Bayview Hunters Point Redevelopment Plan EIR.

Most of the Bayview Hunters Point plan area is developed, except for some of the upland areas in the Hunters Point Shoreline and Candlestick Activity Nodes. Therefore, only the undeveloped upland areas in these activity nodes are most susceptible to the effects of erosion. Erosion can be mitigated by typical construction methods such as restricting cut and fill slopes, terracing, installing storm drains, and landscaping, which will be addressed in the site-specific geotechnical study required by the DBI as part of the building permit process. As a result, erosion impacts were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Unstable subsurface materials that occur in the Bayview Hunters Point plan area include bedrock prone to landsliding, liquefiable sediments, expansive soils, and Bay Mud. As a result, development may be damaged by settlement or instability of the subsurface materials. However, project-specific development will be required to conform to the Uniform Building Code. In addition, tidally influenced groundwater occurs at depths shallow enough to influence excavation, construction, operation, and stability of buildings and buried utilities. Dewatering will be necessary to maintain stable excavation conditions for

foundation installation, and permanent dewatering may be needed to address seepage and the potential for settlement and subsidence. A final soils report required as a condition of the building permit process will address the potential for settlement and subsidence. The report will contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. In conclusion, all impacts related to geology and soils were considered to be less than significant under the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, Rincon Hill consists of a knob of Franciscan Assemblage Rock. The Franciscan Assemblage contains large amounts of greenstone, basalt, chert, and sandstone, but beneath the Rincon Hill plan area and the surrounding area, it consists mainly of graywacke with smaller amounts of shale, siltstone, chert, and conglomerate. Surficial geologic materials surrounding the Rincon Hill plan area consist generally of artificial fill, dune sand, and surficial deposits. Rincon Hill is located in an area subject to groundshaking from earthquakes along the San Andreas and Northern Hayward Faults and other faults in the San Francisco Bay Area. Portions of the Rincon Hill plan area are in, or adjacent to, an area of liquefaction potential, a Seismic Hazards Study Zone designated by the California Division of Mines and Geology, and an area susceptible to landslides.

As discussed above, for any individual development proposal in an area of liquefaction potential or an area susceptible to landslide, potential damage to structures from geologic hazards on a project site will be ameliorated through the DBI requirement for a geotechnical report and review of the building permit application.

The Rincon Hill plan area is not in an Alquist-Priolo Special Studies Zone and no known active fault exists on or in the immediate vicinity of the area. The closest active faults are the San Andreas Fault, approximately eight miles southwest of downtown, and the Hayward Fault, about 16 miles northeast of Downtown. Like the entire San Francisco Bay Area, the Rincon Hill plan area is subject to groundshaking in the event of an earthquake on these faults, although surface rupture is unlikely. In light of the above, geology and soils impacts resulting from implementation of the Rincon Hill Plan were not considered to be significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, no part of the Eastern Neighborhoods plan area is located within an Alquist-Priolo Special Studies Zone, and no known active fault exists within San Francisco. The closest active faults are the San Andreas Fault located approximately eight miles southwest of Eastern SoMa and the Hayward-Rodgers Creek Fault located approximately 10 miles northeast of Eastern SoMa. Therefore, surface rupture in the Eastern Neighborhoods plan area was determined to be unlikely under the Eastern Neighborhoods Rezoning and Area Plans EIR.

The Eastern Neighborhoods plan area may be subject to strong seismic shaking in an earthquake. ABAG predicts that the bedrock portions of the Eastern Neighborhoods will experience light to strong groundshaking in the event of a major earthquake on the San Andreas, Hayward-Rodgers Creek, or San Gregorio fault systems. Any subsequent development project will be required to conform to the San Francisco Building Code. As discussed above, the DBI may require a geotechnical report that will reduce the hazard(s).

Much of the Eastern Neighborhoods plan area that is underlain by unconsolidated sediments is identified as an area of liquefaction potential by the California Geological Survey. Liquefaction hazard will thus affect most of the area where new development is anticipated to occur. As discussed above, the DBI will require the project sponsor to prepare a geotechnical report. Therefore, impacts related to liquefaction were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Potrero Hill has been identified as an area of potential landslide hazard. Construction within one of these zones of any subsequent development project implemented pursuant to the proposed zoning controls will require an investigation in accordance with the Seismic Hazards Mapping Act. Sponsors of such projects may be required to undertake slope stabilization as part of foundation design, potentially including construction of retaining walls, installation of drilled piers, grade beams, and soil anchors, or other engineering features. Therefore, impacts related to earthquake-induced landslides were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

The waterfront portion of the Central Waterfront neighborhood is located within an area of potential tsunami runup in the event of a tsunami along the San Francisco coast. The Bay shoreline between the Palace of Fine Arts and the Central Basin (adjacent to the Mission Bay area) may be subjected to a seiche as a result of a tsunami reaching the Golden Gate and damage may occur in inundated areas. Tsunamis are extremely rare and there will not be a substantial change from existing conditions with regard to shoreline facilities. Therefore, potential impacts related to damage to structures as a result of any subsequent development implemented pursuant to the proposed zoning controls were determined to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Construction within the Eastern Neighborhoods of any subsequent development project implemented pursuant to the proposed zoning controls that involved extensive grading may increase the potential for erosion and loss of top soil unless appropriate precautions are taken during construction. However, measures to control post-construction erosion will be specified in the Stormwater Pollution and Prevention Plans prepared for subsequent development projects. Furthermore, because the Eastern Neighborhoods are already largely developed, and because the proposed rezoning would not make large undeveloped sites available for new development, the likelihood of mass grading is extremely low. Therefore the potential impacts of erosion were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Expansive soil may be located within the Eastern Neighborhoods plan area and without the appropriate measures, differential settlement and other damage may occur as a result of construction on this soil of any subsequent development project implemented pursuant to the proposed zoning controls. As discussed previously, development located on soil with an expansion index greater than 20 requires a geotechnical investigation. According to the Eastern Neighborhoods Rezoning and Area Plans EIR, compliance with the legally required code requirements for addressing impacts related to expansive soil will ensure that potential impacts related to expansive soils are less than significant.

Should any subsequent development project implemented pursuant to the proposed zoning controls require grading on steep slopes, such grading may cause soil to become unstable and induce ground failures. As discussed previously, the Building Code contains provisions for grading in accordance with the recommendations of a soil engineering report, which would be required by DBI for development located on such steep slopes. Furthermore, because the vast majority of Potrero Hill will remain unchanged as to zoning and height and bulk, the proposed rezoning will not promote substantial new development on the steepest portions of the Eastern Neighborhoods plan area. Therefore, impacts related to excavation of slopes were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Should dewatering be necessary for construction of any subsequent development project implemented pursuant to the proposed zoning controls, DBI will require a project-specific soils report as discussed above. In conclusion, all impacts related to geology and soils were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, during moderate to severe ground shaking, the Market and Octavia Neighborhood may be exposed to lateral and vertical forces that may cause damage to structures, unless structures were designed to withstand high levels of ground shaking. The Market and Octavia Neighborhood Plan will be required to conform to the San Francisco Building Code. As discussed above, the DBI will require a geotechnical report. Therefore, potential damage to structures from ground shaking was considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Approximately one quarter of the Market and Octavia Neighborhood plan area is underlain by soil with a high potential for liquefaction. Portions of the Market and Octavia Neighborhood plan area have steep slopes (up to 15 percent) with bedrock that has been characterized as susceptible to landslides. As discussed above, the DBI will require a geotechnical report that may include measures to mitigate the hazard, if necessary. With adherence to these required measures, potential subsidence, liquefaction, and landslide impacts were considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Expansive soils may also be present within the Market and Octavia Neighborhood plan area. As discussed above, the DBI requires a geotechnical report addressing soil conditions for review and approval by the DPW. With the adherence to DBI permit review procedures, there will be no significant impacts related to soil sediment. In conclusion, all impacts related to geology and soils were considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to geology and soils due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential geology and soils impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to geology and soils and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to expose people or structures to substantial adverse effects due to rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides, result in substantial soil erosion or the loss of topsoil, result in placement on unstable geologic unit or soil, result in placement on expansive soil, contain soils inadequate for supporting septic tanks or alternative wastewater disposal systems, or substantially change the topography or any unique geologic or physical feature would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to geology and soils. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the

abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to geology and soils would be less than significant.

Cumulative Impacts

The geographic context for cumulative geology and soils impacts is the immediate vicinity surrounding development within the EZ. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to geology and soils. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to geology and soils. The contribution of potential impacts from the proposed project to the cumulative geology and soils impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

O. HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section addresses potential project impacts related to water quality standards and waste discharge requirements, groundwater supplies, alteration of drainage patterns as related to erosion and flooding, the effects of runoff water on stormwater drainage systems, water quality, housing in flood hazard areas, flood flows, levy or dam failure, and inundation by tsunami or mudflow.

ENVIRONMENTAL SETTING

San Francisco Bay

In 1993, the State Water Resources Control Board (SWRCB) initiated the Regional Monitoring Program for the San Francisco estuary for the general purposes of assessing regional water quality conditions and characterizing patterns and trends of contaminant concentrations and distribution in the water column as well as identifying general sources of contamination to the Bay. The program has established a database of water quality and sediment quality in the estuary, particularly with regard to toxic and potentially toxic trace elements and organic contaminants.

The most recent water quality data for the Central Bay,¹ where the Bayside outfalls and combined sewer overflow (CSO) structures discharge, was collected in 2003.² This data indicates that, with the exception of polychlorinated biphenyls (PCBs) in all samples and copper in one sample, water quality conditions remain well within water quality objectives established by the California Regional Water Quality Control Board (CRWQCB) for the parameters monitored. These parameters include conventional water quality parameters (ammonia, conductivity, dissolved oxygen, dissolved organic carbon, silicates, hardness, nitrate, nitrite, pH, phosphate, salinity, temperature, suspended solids, phaeophytin, and chlorophyll); trace elements (arsenic, cadmium, cobalt, copper, iron, lead, manganese, mercury, methylmercury, nickel, selenium, silver, and zinc); and trace organics including polynuclear aromatic hydrocarbons, PCBs, pesticides, and polybrominated diphenyl ethers.

¹ *In previous years, the Regional Monitoring Program included collection of samples from specific sampling locations; the closest stations monitored were Alameda and Oyster Point. In 2002 the program adopted a stratified-random sampling design which included collection of samples from random locations within five specific hydrographic regions of the Bay. The data discussed in this section are for samples collected from four randomly selected locations with the Central Bay hydrographic region.*

² *Balboa Park Station Area Plan, Adopted April 7, 2009, at page 275. Original Source: San Francisco Estuary Institute, Annual Monitoring Results, the San Francisco Estuary Regional Monitoring Program for Trace Substances (RMP), 2003. accessed at http://www.sfel.Org/rmp/2003/2003_AnnuatResults.htm.*

Pacific Ocean

The San Francisco Public Utilities Commission (SFPUC) conducts the Southwest Ocean Outfall Regional Monitoring Program to assess the environmental effects related to the discharge of effluent from the Oceanside Water Pollution Control Plant (OWPCP) and associated CSO facilities. The program includes a Beach Monitoring Program to monitor bacterial concentrations at recreational beaches and a regional Offshore Monitoring Program involving the collection and analysis of physical, chemical, and biological parameters to assess and compare the Southwest Ocean Outfall (SWOO) outfall region to reference conditions.³ The Offshore Monitoring Program has demonstrated that between 1997 and 2004, San Francisco beaches were available for water contact recreation 95 percent or more of the time during the eight-year monitoring period. Biological parameters and sediment pollutant concentrations at the SWOO discharge area have generally been the same or essentially the same as at reference stations.

Other Water Features

Bays and natural lakes in the City include: Mountain Lake, Mission Bay, Yerba Buena Cove, Lake Merced, Laguna Puerca, and Laguna Honda.⁴ Artificial bodies of water include: Twin Peaks Reservoir and Sunset Reservoir in the southwestern quadrant of the City; University Mound Reservoir, Yosemite Marsh, McNab Lake, South Basin, India Basin, and Islais Creek Channel in the southeastern quadrant; China Basin and Mission Creek Channel in the northwestern quadrant; and Spreckels Lake, Stow Lake, and various smaller lakes and ponds in Golden Gate Park in the northwestern quadrant.⁵ Between Hunters Point and Candlestick Point, an unnamed stream runs north to south and drains into the South Basin in the Bay. Historically, there were small creeks which 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.

Groundwater

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. The project area overlies portions of the Downtown, Marina, Islais

³ *Balboa Park Station Area Plan, Adopted April 7, 2009, at page 275. Original Source: San Francisco Public Utilities Commission, Southwest Ocean Outfall Regional Monitoring Program, Eight-Year Summary Report, 1997-2004. January 2006.*

⁴ *Creek and Watershed Map of San Francisco, Oakland Museum of California, 2007, website, <http://www.museumca.org/creeks/1690-OMSFVeryBig.html>, accessed April 5, 2009.*

⁵ *The list of artificial bodies of water was created by cross checking the Creek and Watershed Map of California with a map provided by the CDFG IMAPS Viewer. California Department of Fish and Game, IMAPS Viewer: Restricted BIOs Viewer, website: <http://www.dfg.ca.gov/biogeodata/gis/imaps.asp>, accessed April 5, 2009. The "California Lakes" and "Hydrography (100K)" layers were reviewed to prepare the list of water features in San Francisco.*

Valley, and South San Francisco basins. However, the majority of the project area overlies the Downtown Basin. 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.⁶

Local groundwater use has continued 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 2.5 mgd is produced by these wells. The groundwater is mostly used in the Westside Groundwater Basin by the San Francisco 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.⁷

The Downtown San Francisco groundwater basin is located on the northeastern portion of the San Francisco peninsula, and is one of five basins in the eastern part of San Francisco, each separated from the other by bedrock ridges. The groundwater basin is made up of shallow unconsolidated alluvium underlain by less permeable bedrock within the watershed located east and northeast of the Twin Peaks area including Nob and Telegraph Hills to the north and Potrero Point to the east, as well as most of the downtown area. Bedrock outcrops along much of the ridge form the northeastern and southern basin boundaries. In general, groundwater flow is northeast, following the topography. Average precipitation within the basin is approximately 24 inches per year.⁸ Groundwater from the Downtown basin is used for some industrial and landscape irrigation.

Based on semi-annual monitoring, the groundwater currently used for irrigation and other nonpotable uses in San Francisco meets, or exceeds, the quality needs for these end uses. Plans for development of additional groundwater in San Francisco include plans for potable supply in the North Westside Groundwater Basin. As part of this effort, the groundwater quality at new proposed well sites is being sampled for all drinking water parameters. Based on preliminary information collected to date, water quality appears to meet drinking water standards at the new proposed well sites. However, two existing irrigation wells have detected nitrate and iron at levels above drinking water standards. These elevated levels may be the result of a shallow sanitary seal or other historic land uses at these specific sites.⁹

⁶ *San Francisco Public Utilities Commission (SFPUC), 2005 Urban Water Management Plan for the City and County of San Francisco, at page 15, December 2005.*

⁷ *SFPUC, 2005 Urban Water Management Plan for the City and County of San Francisco, at page 15, December 2005.*

⁸ *California Department of Water Resources Division of Planning and Local Assistance, California's Groundwater Bulletin 118, San Francisco Hydrologic Region Downtown Groundwater Basin, prepared February 27, 2004, <http://www.groundwater.water.ca.gov/bulletin118/>, accessed July 13, 2009.*

⁹ *SFPUC, 2005 Urban Water Management Plan for the City and County of San Francisco, at page 18, December 2005.*

Groundwater recharge to the groundwater basins occurs from infiltration of rainfall, landscape irrigation, and leakage of water and sewer pipes. Recharge to the Downtown San Francisco groundwater basin was estimated to be 5,900 ac-ft per year. Recharge due to leakage from municipal water and sewer pipes accounted for about half of the total recharge of groundwater in the San Francisco area. Average recharge to the San Francisco groundwater basins beneath the project area varies from 269 to 1,836 acre feet per year.¹⁰

The limited available water quality data for the San Francisco basins show that the general character of groundwater for all basins beneath the entire San Francisco peninsula is similar. Groundwater beneath the San Francisco peninsula is a mixed cat ion bicarbonate type, and considered generally “hard” (CaCO₃ concentrations between 121 and 180 mg/L). Concentrations of most major dissolved constituents are within the guidelines recommended by the U.S. EPA. Total dissolved solids vary from about 200 to over 700 parts per million. Elevated concentrations of nitrate and chloride are common, especially at shallower depths.¹¹

Stormwater

Refer to Section V.K (Utilities and Service Systems) for a discussion of the City’s combined sewer and stormwater system.

Bacterial Concentrations

Bacterial concentrations may increase to levels above water quality standards in the vicinity of the CSOs.¹² When overflows occur, the City is required to post signs on beaches in the vicinity of the CSO until the bacteria level drops below the single sample minimum protective bacteriological standards contained in the California Department of Health Services regulations for public beaches and ocean water contact sports. Although bacterial concentrations are a concern, they do not currently result in a violation of either of the City’s wastewater NPDES permits.

¹⁰ California Department of Water Resources Division of Planning and Local Assistance, *California’s Groundwater Bulletin 118, San Francisco Hydrologic Region*, prepared February 27, 2004, <http://www.groundwater.water.ca.gov/bulletin118/>, accessed July 13, 2009.

¹¹ California Department of Water Resources Division of Planning and Local Assistance, *California’s Groundwater Bulletin 118, San Francisco Hydrologic Region Marina Groundwater Basin*, prepared February 27, 2004, <http://www.groundwater.water.ca.gov/bulletin118/>, accessed July 13, 2009.

¹² *Balboa Park Station Area Plan, Adopted April 7, 2009, at page 276. Original Source: San Francisco Public Utilities Commission, Wastewater System Reliability Assessment, Baseline Summary, Draft. December 2003. Prepared by SFPUC Water Pollution Control Division, San Francisco Department of Public Works, Bureau of Engineering, Hydraulic & Mechanical Sections, and The Water Infrastructure Partners.*

Water Quality

The SFPUC's Water Quality Division regularly collects and tests water samples from reservoirs and designated sampling points throughout the system to ensure that the SFPUC's water meets or exceeds federal and state drinking water standards. In 2007, Water Quality staff conducted 92,692 drinking water tests in the transmission and distribution systems, and treatment plant operators collected more than 77,000 water samples for treatment process control monitoring.

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Such substances are called contaminants. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In 2007, SFPUC water met or exceeded federal and state standards for drinking water, as in years past.¹³

Flooding

The City of San Francisco does not currently participate in the National Flood Insurance Program (NFIP), and no flood maps are published for the City. FEMA is revising Flood Insurance Rate Maps (FIRMs) which support the NFIP for San Francisco Bay communities. FEMA is currently conducting a detailed analysis of flood hazards in San Francisco Bay, and issued a preliminary FIRM for the City on September 21, 2007. The preliminary FIRM identified potential flood hazard areas on Treasure Island.¹⁴ The project area was not identified by FEMA as having potential for flooding.

Tsunamis and Mudflows

A study by the Federal Insurance Administration estimated the probabilities that seismic sea waves (tsunamis) would produce runup of seawater into San Francisco. Damaging tsunamis are not common on the California coast and devastating tsunamis have not occurred in historic times in the Bay Area. However, due to the lack of information about the kind of tsunami runups that have occurred in the prehistoric past, there is considerable uncertainty about the extent of runup that could occur. Therefore, research into the runup potentials in California is ongoing.¹⁵ The San Francisco General Plan's 20-Foot Tsunami Runup Map displays areas of the City where tsunamis are thought to be possible. The eastern and northeastern portions of the project area, those adjacent to the Bay, are displayed as areas of potential inundation by tsunamis.

¹³ SFPUC, *Annual Water Quality Report, 2007*, http://sfwater.org/detail.cfm/MC_ID/13/MSC_ID/166/MTO_ID/299/C_ID/4048, accessed July 13, 2009

¹⁴ *The National Flood Insurance Program and Flood Insurance Rate Map for San Francisco, October 17, 2007.*

¹⁵ *City and County of San Francisco, Planning Department, San Francisco General Plan, Community Safety Element, Adopted August 15, 1997.*

Mudflows, or mudslides, may occur in San Francisco during periods of heavy rain.¹⁶ Any potential hazard from mudslides would be avoided by the Department of Building Inspection's approval of the final plans for any specific development, which would evaluate any potential mudslide hazard on the site. As a condition of approval, the City may require specific elements in the project landscaping and building construction to reduce the hazard of mudslides.

Dam 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.¹⁷ The SFPUC has nearly completed a seismic and general rehabilitation retrofit of the City's largest reservoir, the Sunset Reservoir.¹⁸

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Violate any water quality standards or waste discharge requirements;
- 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 preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- 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 or siltation on- or off-site;
- 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 offsite;
- 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;

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *SFPUC, Project: Sunset Reservoir Upgrades - North Basin, website: http://sfwater.org/Project.cfm/MC_ID/35/MSC_ID/393/MTO_ID/649/PRJ_ID/127, accessed July 14, 2009.*

- Otherwise substantially degrade water quality;
- 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;
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Impact Evaluation

New development in the City of San Francisco is subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to hydrology and water quality. For example:

- Any groundwater encountered during construction of a project would be subject to 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. The Bureau of Environmental Regulation and Management of the San Francisco Public Utilities Commission must be notified of projects necessitating dewatering, and may require analysis before discharge. Should dewatering be necessary, the final soils report would address the potential settlement and subsidence impacts of this dewatering. The report would contain a determination as to whether or not a lateral movement and settlement survey should be done to monitor any movement or settlement of surrounding buildings and adjacent streets. If a monitoring survey is recommended, the Department of Public Works would require that a Special Inspector (as defined in Article 3 of the Building Code) be retained by the project sponsor to perform this monitoring.

Groundwater observation wells would be installed to monitor potential settlement and subsidence. If, in the judgment of the Special Inspector, unacceptable movement were to occur during dewatering, groundwater recharge would be used to halt this settlement. Costs for the survey and any necessary repairs to service lines under the street would be borne by the project sponsor. As a result of such efforts, impacts to the stormwater drainage system would be less than significant.

- The floodplain management ordinance enacted by the San Francisco Board of Supervisors governs new construction and substantial improvements in flood prone areas of San Francisco. 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 majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Hydrology and water quality impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, potable water supply is not an issue because the Bayview Hunters Point Redevelopment Plan will be served by an existing water supply and is not located within a potable water supply watershed or over a potable groundwater aquifer. Groundwater resources or groundwater recharge are not issues because, according to the Bayview Hunters Point Redevelopment Plan EIR, the Bayview Hunters Point Redevelopment Plan will result in negligible effects to groundwater. Groundwater dewatering may be required for construction of specific redevelopment projects. In the future, however, this temporary dewatering will not substantially affect groundwater resources and discharge of any groundwater produced by dewatering to the sewer system will be regulated by a permit from the City. Flooding hazards are not an issue because, with the possible exception of flooding due to inadequate sewer capacity, the Bayview Hunters Point plan area is not subject to flooding and, according to the Bayview Hunters Point Redevelopment Plan EIR, the Plan will not have an impact on flooding.

Two aspects of the Bayview Hunters Point Redevelopment Plan may result in long term changes to the wastewater flows to the City’s combined sewer system: (1) new development will increase sanitary sewage flows year-round to the combined sewer system, but (2) increased landscaping and decreased impervious surfaces will decrease the volume of stormwater runoff to the combined sewer system. An increase in volume of CSO discharges may affect water quality and may be considered a potentially significant water quality impact due to the potential to degrade water quality. Runoff from new development and redevelopment projects may contain many types of pollutants including polynuclear aromatic hydrocarbons from vehicle emissions; heavy metals such as copper from brake pad wear and zinc from tire wear; dioxins as products of combustion; mercury resulting from atmospheric deposition. However, the Bayview Hunters Point Redevelopment Plan will include community enhancement programs and design guidelines, such as Streetscape Plans, Green Streets and Framework Open Space programs, that will promote increased landscaping, street trees and open space, and an associated decrease in the volume of stormwater runoff flowing to the combined sewer system.

Compliance with existing regulations and policies will protect water quality and beneficial uses of the Bay. These provisions include developing and implementing pollution prevention programs that focus on contaminant reduction activities; reviewing and modifying pre-treatment programs to ensure that CSOs

are minimized; coordinating with the SFPUC to ensure that new developments will remain in full compliance with all aspects of the federal CSO Control Policy; complying with conservation of water use consistent with existing and future guidelines recommended by the SFPUC; and incorporating recycled water use in planning and design of major new developments.

There are a few isolated areas along the waterfront in the Northern Gateway, Hunters Point Shoreline, South Basin, and Candlestick Point Activity Nodes that do not drain to the combined sewer system. Implementation of the Bayview Hunters Point Redevelopment Plan will facilitate development in these areas, similar to the areas served by the combined sewer system. New development in these areas may potentially change the existing drainage patterns by increasing impervious surfaces and increasing the volume of stormwater runoff, a known source of pollution. However, since stormwater runoff from these areas does not drain to the combined sewer system for treatment and disposal, but rather to separate stormwater systems or by sheetflow to the Bay, these areas are subject to different (but related) regulatory requirements for water quality protection. According to the Bayview Hunters Point Redevelopment Plan, compliance with the requirements of the Phase II, Municipal Storm Water NPDES Permit will reduce potential water quality impacts associated with stormwater runoff and changes in drainage patterns to less than significant.

Implementation of the Bayview Hunters Point Redevelopment Plan will indirectly lead to a variety of construction activities throughout the Bayview Hunters Point plan area. Construction activities may affect water quality due to grading and earthmoving operations, use of fuels and other chemicals for construction equipment, and demolition and construction in proximity to the Bay. Grading and earthmoving activities will result in exposure of soil during construction and may result in erosion and excess sediments carried in stormwater runoff to either the Bay or to the combined sewer system. In addition, construction activities will also likely require temporary on-site use and storage of vehicles, fuels, wastes and other pollutant sources; if improperly handled, these pollutants may be transported in stormwater runoff to surface waters. However, with proper mitigation and compliance with appropriate water quality regulations, water quality impacts associated with construction activities was considered to be less than significant under the Bayview Hunters Point Redevelopment Plan.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, potable water supply is not an issue because the Rincon Hill plan area will be sewerred by an existing water supply and is not located within a potable water supply watershed or over a potable groundwater aquifer. Groundwater resources or groundwater recharge are not issues because all of the options for the Rincon Hill Plan will result in negligible effects to groundwater. Groundwater dewatering may be required for construction of specific development projects; however, this temporary dewatering will not substantially affect groundwater resources, and discharge of any groundwater produced by dewatering to the sewer system will be regulated by a permit from the City. Further, groundwater is not used or planned as a potable water supply in this part of San Francisco.

Flooding hazards are not an issue because, with the possible exception of flooding due to inadequate sewer capacity, the Rincon Hill plan area is not subject to flooding.

Implementation of the Rincon Hill Plan will lead to new development and attendant construction activities throughout the Rincon Hill plan area. Construction activities may affect water quality due to grading and earthmoving operations, use of fuels and other chemicals for construction equipment, and demolition and construction. Grading and earthmoving activities will result in exposure of soil during construction and may result in erosion and excess sediments carried in stormwater runoff to the combined sewer system. In addition, construction activities will also likely require temporary on-site use and storage of vehicles, fuels, wastes and other pollutant sources; if improperly handled, these pollutants may be transported in stormwater runoff. However, with proper mitigation and compliance with appropriate water quality regulations, water quality impacts associated with construction activities were considered to be less than significant under the Rincon Hill Plan EIR. Construction projects will be subject to the requirements of the NPDES permit for the Southeast Plant, and North Point Wet Weather Facility, including compliance with the nine minimum controls described in the federal CSO Control Policy. Each subsequent project will be required to develop an erosion and sediment control plan specifying Best Management Practices to prevent the off-site migration of sediment and other pollutants and to reduce the effects of runoff from the construction site to the combined sewer system. Therefore, water quality impacts related to discharge of construction related stormwater runoff were considered to be less than significant under the Rincon Hill Plan EIR.

Two aspects of all of the Rincon Hill Plan options may result in long term changes to the wastewater flows to the City's combined sewer system: (1) new development would increase sanitary sewage flows year-round to the combined sewer system, and (2) increased landscaping and decreased impervious surfaces would decrease the volume of stormwater runoff to the combined sewer system. The effects of both factors on the combined sewer system are closely related, and the combined effect of both factors may indirectly result in increased volume and/or frequency of discharges to the Bay. An increase in volume of CSO discharges may affect water quality and was considered to be a potentially significant water quality impact due to the potential to degrade water quality under the Rincon Hill Plan EIR.

However, as individual projects in the Rincon Hill plan area are developed, each project sponsor will be required to coordinate with SFPUC to ensure that these new developments will actively participate in and be in compliance with appropriate pollution prevention programs, which will in turn ensure compliance with the NPDES permit requirements and the federal CSO Control Policy. Based on compliance with existing and future regulations and coordination with ongoing planning efforts to provide long-term water quality protection of the Bay, water quality impacts associated with changes in combined sewer overflow discharges to the Bay were considered to be less than significant under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, construction of individual development projects that may be proposed and approved pursuant to the proposed zoning controls may

affect water quality, but the effects will be temporary and less than significant, assuming compliance with applicable permits and regulations. Water quality may be affected by grading and earthmoving operations, use of fuels and other chemicals for construction equipment, and demolition and construction. Grading and earthmoving will expose soil during construction and may result in erosion and excess sediments carried in stormwater runoff to either the Bay or to the combined sewer system. Stormwater runoff from temporary on-site use and storage of vehicles, fuels, wastes and other hazardous materials may also carry pollutants to surface water if these materials were improperly handled. However, compliance with appropriate water quality regulations, water quality impacts associated with construction activities were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Three aspects of the Eastern Neighborhoods Rezoning and Area Plans may result in long-term changes to the wastewater flows to the City's combined sewer system: (1) development of individual projects that may be proposed and approved pursuant to the proposed zoning controls will locally increase sanitary sewage flows year-round to the combined sewer system, (2) a reduction in industrial land uses will likely decrease the volume of industrial discharges to the combined sewer system, and (3) increased landscaping and decreased impervious surfaces may decrease the volume of stormwater runoff to the combined sewer system. The effects of these factors on the combined sewer system are closely related, and the combined effect may indirectly result in increased volume and/or frequency of discharges to the Bay if the increase in sanitary sewage flows is greater than the decrease in industrial waste discharges and stormwater runoff. An increase in volume of CSO discharges may affect water quality and, according to the Eastern Neighborhoods Rezoning and Area Plans EIR, was considered to be a potentially significant water quality impact due to the potential to degrade water quality.

However, any subsequent development activities secondary to implementation of the proposed rezoning and community plans that may affect wastewater and stormwater management must be conducted within the context of the existing regulatory framework. Such activities also must be coordinated within the context of ongoing and future citywide planning efforts, thereby providing additional protection of water quality and beneficial uses. Based on compliance with existing and future regulations and coordination with ongoing planning efforts to provide long-term water quality protection of the Bay, water quality impacts associated with changes in combined sewer overflow discharges to the Bay were considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR. Further project-level water quality analysis may be required for subsequent individual development projects under the Eastern Neighborhoods Rezoning and Area Plans, depending on the nature and timing of the project, and site specific mitigation measures applicable to individual developments may be required.

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, the Eastern Neighborhoods Rezoning and Area Plans will not result in adverse effects related to potable water supplies, groundwater resources, or flooding. Potable water supply is not an issue because the Eastern Neighborhoods will continue to be served by the existing water supply (discussed under Utilities) and is not located within a potable water supply watershed or over an existing potable groundwater aquifer. Neither groundwater

resources nor groundwater recharge will be affected because subsequent development projects that may occur as a result of the proposed zoning controls will result in negligible effects on groundwater. Flooding hazards are not an issue because, with the possible exception of flooding due to inadequate sewer capacity, the Eastern Neighborhoods are not subject to flooding.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, the lowest elevation within the Market and Octavia Neighborhood Plan is approximately 25 feet above mean sea level, therefore the Market and Octavia Neighborhood is not expected to be affected by extreme high tides or by a rise to 6.5 feet above mean sea level for a 100-year flood.

The Central Freeway parcels are currently vacant land that was previously occupied by the elevated freeway and surface parking lots. The redevelopment of these parcels will once again introduce impervious surfaces on these lots. All development on these parcels will be required to manage wastewater and storm water runoff within the combined sanitary and storm water sewer system. Impacts associated with surface water run-off were considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

All projects developed within the Market and Octavia Neighborhood plan area will be subject to the City's Industrial Waste Ordinance. With the implementation of the Ordinance's requirements, the impacts related to ground water were considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Certain projects resulting from implementing the Market and Octavia Neighborhood Plan will include subsurface excavation to accommodate underground parking and basements. Dewatering may be required. Any groundwater encountered during Plan-related construction will be subject to the San Francisco Industrial Waste Ordinance. Construction activities may result in an increase in the amount of sediment or debris contained in stormwater runoff entering the stormwater sewer system, potentially reducing the storm system capacity and causing localized flooding. Before receiving a permit for any grading operations, a developer is required to submit the grading plan to the City for review. The grading plan must include erosion control measures. Discharges of stormwater from construction projects will require the use of Best Management Practices pursuant to California Building Code Chapter 33, Excavation and Grading. In conclusion, all impacts related to hydrology and water quality were considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as "other areas". This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or

industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to hydrology and water quality due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential hydrology and water quality impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to hydrology and water quality and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to violate water quality standards or discharge requirements, substantially deplete groundwater supplies or interfere with groundwater recharge, substantially alter existing drainage pattern that would result in substantial erosion or siltation, substantially alter existing drainage pattern or increase surface runoff that would result in flooding, create or contribute to runoff water that would exceed stormwater drainage system capacity, substantially degrade water quality, place housing within a 100-year flood hazard area, impede or redirect flood flows within a 100-year flood hazard area, or expose people or structures to significant risk, including loss, injury, or death, due to flooding, seiche, tsunami, or mudflow would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to hydrology and water quality. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to hydrology and water quality would be less than significant.

Cumulative Impacts

The geographic context for cumulative hydrology and water quality impacts is the San Francisco Bay Area. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to hydrology and water quality. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to hydrology and water quality. The contribution of potential impacts from the proposed project to the cumulative hydrology and water quality impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

V. ENVIRONMENTAL SETTING AND IMPACTS

P. HAZARDS/HAZARDOUS MATERIALS

INTRODUCTION

This section addresses potential project impacts related to the use and disposal of hazardous materials, reasonably foreseeable accident conditions involving hazardous materials, hazardous materials exposure to nearby schools, hazardous materials sites, safety hazards related to nearby public airports and private airstrips, impairment of emergency response plans, and fire hazards.

ENVIRONMENTAL SETTING

Hazardous Materials Use

Hazardous materials, defined in Section 25501(h) of the California Health and Safety Code, are materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a substantial present or potential hazard to human health and safety or to the environment if released to the workplace or environment. Hazardous materials have been and are commonly used in commercial, agricultural and industrial applications as well as in residential areas to a limited extent. A waste is any material that is relinquished, recycled, or inherently waste-like. Title 22 of the California Code of Regulations, Division 4.5, Chapter 11 contains regulations for the classification of hazardous wastes. A waste is considered a hazardous waste if it is toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gasses) in accordance with the criteria established in Chapter 11, Article 3. Article 4 of Chapter 11 lists specific hazardous wastes and Article 5 identifies specific waste categories including Resource Conservation and Recovery Act (RCRA) hazardous wastes, non-RCRA hazardous wastes, extremely hazardous wastes, and special wastes. If improperly handled, hazardous materials and wastes can result in public health hazards, if released to the soil, groundwater, or air in vapors, fumes, or dust.

Typically, industries and institutions within the City that incorporate hazardous materials into their production include, but are not limited to, automotive services, dry cleaners, photo processing, X-ray processing, plastic fabrication, printing and lithography, medical services, school facilities, restaurants, and hotels. Potential hazards associated with hazardous materials including leaks, explosions, and fires.

A business may also use a hazardous material during daily operations. There is a potential for the hazardous material to be released into the environment via air or soil transport or surface runoff. Hazardous waste is often a by-product of many industrial processes.

Hazardous materials may be released into the environment through a number of methods. Toxins may escape into the environment through badly sealed landfill areas, incineration, and other hazardous waste disposal techniques. An accident may occur during transport of the hazardous substance, exposing persons to noxious gas or possible contact with the toxin. In addition, the substance may enter the storm

drain system if it leaks onto the street and ultimately enters the ocean. Storage facilities may leak, allowing the release of a hazardous substance into the environment. In some cases, the hazardous substance may leach through the soil and reach the groundwater.

The project site includes industrial, residential, and commercial land uses. Current significant uses of hazardous materials in the project site may include diesel fuel, engine oils, gasoline, solvents, and other chemicals. Historical significant uses of hazardous materials in the project site may include the use of asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs).

Asbestos Containing Materials (ACMs)

Building materials containing asbestos were commonly used in structures between 1945 and 1980. These materials include vinyl flooring and mastic, wallboard and associated joint compound, plaster, stucco, acoustic ceiling spray, ceiling tiles, heating system components, and roofing materials. Airborne particles of asbestos have been found to be hazardous to human health. The Occupational Safety and Health Administration (OSHA) defines ACMs as those materials that contain more than one percent asbestos. The National Emissions Standards for Hazardous Air Pollutants (NESHAP) sets standards for the use, removal, and disposal of ACMs. The Bay Area Air Quality Management District (BAAQMD) Regulation 11, Rule 2, regulates asbestos as a toxic material and lists requirements to limit asbestos emissions associated with building demolition and renovation.¹

Lead-Based Paint (LBP)

LBP is considered a health hazard for people, especially children. From the turn of the century through the 1940s, paint manufacturers used lead as a primary ingredient in many oil-based paints. Use of lead in paint decreased but was still used until 1978 when it was banned from residential use. California law requires that all residential buildings constructed on or before January 1, 1979, or schools constructed on or before January 1, 1993, to be presumed to contain LBP. Structures (residential, commercial, or industrial) are affected by LBP regulations if remodeling, renovations, or demolition activities would disturb LBP surfaces. BAAQMD Regulation 11, Rule 1, regulates the emission of lead into the atmosphere and provides a manual of procedures for handling lead materials.²

Polychlorinated Biphenyls (PCB)

PCBs are a group of synthetic organic chemicals that were used extensively as insulators in electrical equipment such as transformers, ballasts in fluorescent lighting, circuit breakers, and switchgear. In 1976, the EPA banned the manufacture and sale of PCBs. However, PCBs may still be present in older

¹ Bay Area Air Quality Management District, *Regulation 11 Hazardous Pollutants, Rule 2 Asbestos Demolition, Renovation and Manufacturing, Adopted December 15, 1976.*

² Bay Area Air Quality Management District, *Regulation 11 Hazardous Pollutants Rule 1 Lead, March 17, 1982.*

capacitors or transformers. It should be assumed that any transformers contain PCBs unless otherwise marked.

Existing Hazardous Material Sites

An electronic database search of lists maintained by federal, state, and local agencies of sites with known or suspected hazardous material contamination, documented use of hazardous or toxic materials and regulated wastes, documented discharge or spillage incidents, discharge permits, landfills, or storage tanks was performed on October 13, 2008. Sites where potential or known dischargers of hazardous materials within the City are shown in Tables V.P-1 through V.P-3. In general, the environmental hazards potential associated with these listings include but are not limited to soil, soil vapor, and/or groundwater contaminated by unauthorized release of hazardous materials or wastes from industrial processes, chemical storage tanks, water treatment systems, pipelines, landfills, or transportation accidents.

Table V.P-1
CERCLIS Sites in San Francisco

Site Name	Address
1633 Newcomb Street	1633 Newcomb Street San Francisco, CA 94000
Aleman Housing Project	956 Elsworth/Aleman Blvd San Francisco, CA 94110
Arabian American Oil Co.	22 Battery Street San Francisco, CA
Donco Industries	894 Innes Ave San Francisco, CA 94124
Farallon Islands	30 Miles Offshore, West San Francisco, CA 94122
Golden Gate National Recreation Area	Building 201 Fort Mason San Francisco, CA 94123
India Basin Boatyard	894 Innes Ave San Francisco, CA 94107
Presidio of San Francisco	Presidio of San Francisco San Francisco, CA 94129
Treasure Island Naval Station	Treasure Island San Francisco, CA 94130
Treasure Island Naval Station Hunters Point Annex	Treasure Island San Francisco, CA 94130
U.S. Postal Service Vehicle Maintenance	1300 Evans Ave San Francisco, CA 94188
Yosemite Creek Sediment	Yosemite Ave & Hawes Street San Francisco, CA 94124
Source: U.S. EPA, Superfund Site Information, CERCLIS Database, Selection for County of San Francisco, website: http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm , accessed July 13, 2009.	

**Table V.P-2
Cortese Sites in San Francisco**

Site Name	Site Status	Address
Site K (Seawall Lot 333)	Certified/Operation and Maintenance-Land Use Restrictions	1-59 ½ Townsend Street San Francisco, CA 94107
Schlage Lock Company	Active	Bayshore Blvd and Sunnydale Ave San Francisco, CA 94134
Federated Fry Metals	Certified/Operation and Maintenance-Land Use Restrictions	1901 Cesar Chavez Street San Francisco, CA 94124
518 Minna Street Apartments	Certified/Operation and Maintenance-Land Use Restrictions	518 Minna Street San Francisco, CA 94103
Bayview Plume Study Area	Active	Near Intersection of Shafter Ave and Hawes Street San Francisco, CA 94124
PG&E North Beach/Marina Substation	Refer: RWQCB	Bay Street and Buchannan Street San Francisco, CA 94123
Presidio of San Francisco	Active	1,400 AC; Northern-Most Tip of the San Francisco Peninsula San Francisco, CA 94129
Hunter's Point Naval Shipyard, Parcel F	Active	965 Acres, SE portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel E	Active	965 Acres, SE portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel D	Active	965 Acres, SE portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel C	Active	965 Acres, SE portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel B	Active	965 Acres, SE portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel A	Active	965 Acres, SE portion of San Francisco, CA 94101
Naval Station Treasure Island	Active	529 Acres Between San Francisco and Oakland San Francisco, CA 94130
<i>Source: Department of Toxic Substances Control, Envirostor Hazardous Waste and Substances Site List, Selection for County of San Francisco, website: http://www.envirostor.dtsc.ca.gov/public, accessed October 13, 2008.</i>		

**Table V.P-3
Calsites in San Francisco**

Site Name	Site Type	Site Status	Address
199 Fremont Property	Voluntary Cleanup	Refer: Other Agency	199 Fremont Street San Francisco, CA 94105
241 Sixth Street	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	241 6 th Street San Francisco, CA 94103
355 Bryant Street	Voluntary Cleanup	Refer: Other Agency	355 Bryant Street San Francisco, CA 94107
518 Minna Street Apartments	State Response	Certified/Operation and Maintenance-Land Use Restrictions	518 Minna Street San Francisco, CA 94103
858-860 Folsom Street	Voluntary Cleanup	Refer: 1248 Local Agency	858-860 Folsom Street San Francisco, CA 94107
Bayview Plume Study Area	State Response	Active	Near Intersection of Shafter Ave and Hawes Street
BMW of San Francisco	Voluntary Cleanup	Refer: Other Agency	1675 Howard Street San Francisco, CA 94103
California Highway Patrol	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	455 Eighth Street San Francisco, 94103
Deharo/Rhode Island Live/Work	Voluntary Cleanup	Refer: Local Agency-Land Use Restrictions	Between 17 th /Deharo and 16 th /Rhode Island San Francisco, CA 94103
Federated Fry Metals Division of Asarco	State Response	Certified/Operation and Maintenance-Land Use Restrictions	1901 Cesar Chavez San Francisco, CA 94124
Golden Gate Bridge	Voluntary Cleanup	Active	Toll Plaza, Highway 101 San Francisco, CA 94129
H&H Ship Service	Hazardous Waste-Non-Operating	Active-Land Use Restrictions	220 China Basin Street San Francisco, CA 94129
Hunter's Point Naval Shipyard, Parcel B	Federal Superfund Listed	Active	965 Acres, SE Portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel C	Federal Superfund Listed	Active	965 Acres, SE Portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel D	Federal Superfund Listed	Active	965 Acres, SE Portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel E	Federal Superfund Listed	Active	965 Acres, SE Portion of San Francisco, CA 94101
Hunter's Point Naval Shipyard, Parcel F	Federal Superfund Listed	Active	965 Acres, SE Portion of San Francisco, CA 94101
Marina Vista Project	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	725 2 nd Street (75 and 99 Townsend) San Francisco, CA 94107

Table V.P-3 (Continued)
Calsites in San Francisco

Site Name	Site Type	Site Status	Address
McDonald's Restaurant Site	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	820 Bryant Street San Francisco, CA 94103
Naval Station Treasure Island	State Response	Active	529 Acres Between San Francisco and Oakland San Francisco, CA 94103
PG&E Hunters Point	Voluntary Cleanup	Active	1000 Evans Ave Hunters Point Power Plant San Francisco, CA 94124
PG&E North Beach/Marina Substation	State Response	Refer: RWQCB	Corner of Bat Street and Buchanan Street San Francisco, CA 94124
PG&E Potrero	Voluntary Cleanup	Active	1201 Illinois Street San Francisco, CA 94107
Presidio of San Francisco	State Response	Active	1,400 AC; Northern Most Point of San Francisco Peninsula San Francisco, CA 94129
San Francisco Energy Cogeneration Plant	Voluntary Cleanup	Refer: Other Agency	Innes Ave Between Fitch and Earl Streets San Francisco, CA 94901
San Francisco Newspaper Agency	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	1901 Cesar Chavez San Francisco, CA 94124
Schilage Lock Company	State Response	Active	Bayshore Blvd and Sunnydale Ave San Francisco, CA 94134
Seventh and Natoma Site	Voluntary Cleanup	Certified/Operation and Maintenance-Land Use Restrictions	Corner of Seventh and Natoma Streets San Francisco, CA 94103
SF Energy Company Cogeneration Project	Voluntary Cleanup	Refer: Other Agency	Seawall Lot 344 San Francisco, CA 94107
Site K (Seawall Lot 333)	State Response	Certified/Operation and Maintenance-Land Use Restrictions	1-59 & 1/2 Townsend Street San Francisco, CA 94107
Trinity Properties	Voluntary Cleanup	Refer: Other Agency	1169 Market Street San Francisco, CA 94103
Applied Dielectronics, Inc.	Hazardous Waste-Non-Operating	Inactive	1750 Army Street San Francisco, CA 94124
C&M Plating Works	Hazardous Waste-Non-Operating	Inactive	598 6 th Street San Francisco, CA 94103
Donco Industries, Inc.	Hazardous Waste-Non-Operating	Inactive	894 Innes Ave San Francisco, CA 94124

**Table V.P-3 (Continued)
Calsites in San Francisco**

Site Name	Site Type	Site Status	Address
Filipino Education Center	School Cleanup	Inactive-Action Required	824 Harrison Street San Francisco, CA 94107
Mercury Technologies Inc.	Hazardous Waste-Non-Operating	Inactive	Pier 33 North San Francisco, CA 94111
Mirant Potrero, LLC	Hazardous Waste-Non-Operating	Inactive	1201 Illinois Street Unit A San Francisco, CA 94107
<i>Source: Department of Toxic Substances Control, Envirostor Calsites Site List, website: http://www.envirostor.dtsc.ca.gov/public/search, accessed October 13, 2008.</i>			

Cortese List

The Hazardous Waste and Substances Sites (“Cortese”) List is a tool used by the State and local agencies and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California EPA to develop an updated Cortese List at least annually. The Cortese sites identified in San Francisco are outlined in Table V.P-2.

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is a database of potential and confirmed hazardous waste sites where the EPA Superfund program is involved in the oversight. It contains sites that are either proposed to be or are on the National Priorities List (NPL), as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. Table V.P-1 provides a list of CERCLIS sites identified within the City of San Francisco.

DTSC Site Mitigation and Brownsfield Reuse Program (“Calsites”) Database

The Site Mitigation and Brownfields Reuse Program serves to clean up and redevelop Brownfield sites for future use. Brownfields are properties that are contaminated, or thought to be contaminated, and are underutilized due to remediation costs and liability concerns. Often the remediation cost associated with a contaminated site serves as a major deterrent to any planned reuse of that site. Table V.P-3 provides a list of potentially hazardous Calsites located in San Francisco.

Spills, Leaks, Investigation, and Cleanup (SLIC) Program

The SLIC Program was established by the State Water Resources Control Board (SWRCB) to allow each of its nine Regional Boards to oversee the cleanup of illegal discharges, contaminated properties, and other unregulated releases adversely impacting the State’s waters. Sites managed within the SLIC Program include sites polluted as a result of recent or historic spills, subsurface releases (e.g., pipelines, sumps), complaint investigations, and all other unauthorized discharges that pollute or threaten to pollute surface and/or ground waters. The project area is located within the SWRCB’s Region 2, the San

Francisco Bay Regional Water Quality Control Board (SFBRWQCB). Several open and active status SLIC sites are present within the project area. An inventory of SLIC sites within the City can be viewed at the State Water Resources Control Board's website.³

Leaking Underground Fuel Tanks (LUFTs)

The SFBRWQCB also maintains an Underground Storage Tank Program (UST Program) that deals specifically with leaking fuel tanks. While there may be other constituents of concern resulting from leaking fuel tanks, the primary substance of concern of this program is fuel. Most frequently, these fuel tank leaks are associated with common neighborhood gasoline service stations. Several open and active status LUFT sites are present within the project area. An inventory of LUFT sites, including the site name, address, and cleanup status, located within the City can be viewed at the State Water Resources Control Board's website.⁴

City Programs

The City's Department of Public Health (DPH), Environmental Health Section strives to promote health and quality of life by ensuring healthy living and working conditions in the City. The Environmental Health Section is responsible for developing and implementing programs that manage hazardous materials.

Local Oversight Program

The DPH's Local Oversight Program (LOP) provides regulatory oversight at underground Storage Tank release sights, in accordance with state laws, regulations and Water Board policies. The LOP encourages the use of risk-based, cost-effective investigative and remedial technologies to mitigate impacted soil and groundwater. The LOP strives to protect human health, the environment and preserve valuable water resources for current and future use. Pursuant to the California Code of regulations, Title 23 Waters, article 11, Corrective Action, LOP staff perform the following tasks: identify the party responsible for unauthorized releases of petroleum hydrocarbons from leaking underground storage tanks (USTs); review, comment, and approve of hydro-geological reports, feasibility studies, and work plans for soil and groundwater characterization and remedial action; review monitoring data to evaluate the effectiveness of the remedial strategy; certify that the site has been successfully remediated to a level that is protective of human health and the environment; provide regulatory guidance to consultants, contractors, real estate agents, property owners, concerned citizens, etc.; interface with the State Water Resources Control Board and the SFBRWQCB.

³ State Water Resources Control Board, *GeoTracker*, website: <https://geotracker.waterboards.ca.gov/search.asp>, accessed July 13, 2009.

⁴ *Id.*

Asbestos Program

The Asbestos Program identifies and keeps records of ACMs in City-owned buildings and provides consulting to City-owned buildings and provides consulting to City departments regarding all aspects of managing asbestos in buildings. In addition, the Asbestos Program, in compliance with Assembly Bill 3713 of the California Health and Safety Code, issues and updates asbestos notices to city agencies and their employees on a yearly basis. These notices contain summaries of both suspect and sampled asbestos containing building materials that may exist in specific City-owned or leased buildings.

Emergency Response

The release of hazardous material to the environment could cause a multitude of problems to the environment, property, or human health. The Department of Health's Environmental Health Section maintains staff to immediately respond to hazardous materials emergencies that occur in the City. The emergency responders serve as technical consultants for the SFFD Hazardous Materials Team. Staff will also coordinate other environmental health emergencies. Staff is available 24 hours a day, 7 days a week and responds only to calls from the SFFD, the San Francisco Police Department, or other public safety agencies.

Hazardous Material Unified Program Agency (HMUPA)

As the Unified Program Agency for the City and County of San Francisco, HMUPA staff provides oversight of businesses regulated in any one of the following nine program elements: Hazardous Waste Generators; Hazardous Waste Treatment; Hazardous Waste Materials Business Plan; Underground Storage Tanks; Aboveground Storage Tanks; Regulated Substances; Chlorofluorocarbon Recycling; Diesel Back-Up Generators; and Medical Waste.

Lead Prevention Services

The DPH's Environmental Health Division provides information and services related to the prevention of lead contamination. The DPH provides information and education to parents and customized training to community agency staff, enforces the San Francisco Health Code, requiring housing free of lead hazards, provides case management support to families of children with lead exposure, and provides property owners access to the Mayor's Office of Housing (MOH) lead hazard remediation grants. The DPH also supports coalitions and communities advocating for policies and practices to promote healthy homes and healthy neighborhoods. In particular, the DPH provides staff support to the Board of Supervisors Asthma Task Force efforts to improve asthma management and prevention.⁵

⁵ San Francisco Department of Public Health (DPH), website: <http://www.sfdph.org/dph/EH/CEHP/default.asp#>, accessed July 13, 2009.

Hazardous Waste

Hazardous waste responsibilities are divided among local, state and federal levels of government. Local government (the City and County of San Francisco), takes the lead for land use decisions related to hazardous waste facilities and emergency response programs. The State has also delegated much of its enforcement and inspection function for facilities and those entities using hazardous materials and generating hazardous waste to the local Departments of Public Health. The federal government has taken the lead in regulating and in some cases funding the clean up of past contamination which all levels of government now seek to prevent.⁶

The California Hazardous Waste Control Law requires a Hazardous Waste Generator, which stores or accumulates hazardous waste for periods greater than 90 days at an on site facility or for periods greater than 144 hours at an offsite or transfer facility, treats, or transports hazardous waste, to obtain a permit to conduct such activities. The majority of the City's hazardous waste generators does not have a permit to store, treat or transport hazardous waste. Thus, the Hazardous Waste Law limits the City's Hazardous Waste Generators onsite storage of hazardous waste at an unlicensed facility to 90 days and an off site storage to 144 hours. It also restricts the City's Hazardous Waste Generators from treating their wastes or from transporting hazardous waste. Violators of the Hazardous Waste Law are subject to civil and criminal penalties up to \$250,000 per day for each violation and jail time.⁷

Fire Hazards

The City ensures fire safety primarily through provisions of the Building Code and the Fire Code. Existing and new buildings are required to meet standards contained in these codes. In addition, the final building plans for any new residential project greater than two units are reviewed by the SFFD, as well as the DBI, to ensure conformance with these provisions. Subsequent development projects would be required to conform to these standards, which (depending on the building type) may include development of an emergency procedure manual and an exit drill plan. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be mitigated during the permit review process. The City does not contain any State Responsibility Area (SRA) land, and therefore does not have any California Department of Forestry and Fire Protection-identified Fire Hazard Safety Zones.⁸

Airport Safety

The Airport Division of the SFFD is responsible for providing fire protection, fire prevention, code enforcement, emergency medical services, water rescue operations, and hazardous materials abatement for the San Francisco International Airport (SFO). With SFO being the tenth busiest airport in the United

⁶ *City and County of San Francisco, Environmental Protection Element of the General Plan.*

⁷ *DPH, website: <http://www.sfdph.org/dph/EH/HazWaste/default.asp>, accessed July 13, 2009.*

⁸ *California Department of Forestry and Fire Protection, website: http://www.fire.ca.gov/fire_prevention/fhsz_maps/fhsz_maps_sanfrancisco.php, accessed July 13, 2009.*

States, the Airport Division, in assistance with other Airport safety and security personnel, is tasked with ensuring the protection of over half a million passengers each week. In addition, the Division also provides community-based fire safety, fire extinguisher training, CPR, and Automatic External Defibrillator training to the SFO community.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- 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, create a significant hazard to the public or the environment;
- Be 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, resulting in a safety hazard for people residing or working in the project area;
- Be located in the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and
- Expose people or structures to a significant risk of loss, injury or death involving fires.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Hazards and hazardous materials impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan will encourage growth and expansion of existing and new businesses, some of which may be industrial, which may use, handle, transport, or dispose of hazardous materials and hazardous wastes. The increased use of hazardous substances may increase the potential for exposure to workers, the public, and the environment. When handled properly and used in compliance with permitted and other regulatory requirements, such as Brownfields regulations and policies, the Polanco Redevelopment Act, the California Health and Safety Code, the California Land Environmental Restoration and Reuse Act, and the San Francisco Health Code, hazardous substances are anticipated to not necessarily pose a human health concern or a threat to the environment. Although the risk of upset can never be completely eliminated, any future production or generation of hazardous materials will not be expected to create a public health or environmental hazard if adequate safety precautions are employed. The Bayview Hunters Point Redevelopment Plan will not have a significant impact related to hazards and hazardous materials according to the Bayview Hunters Point Redevelopment Plan EIR.

Because the extent of demolition or renovation that will occur due to the implementation of the Bayview Hunters Point Redevelopment Plan is unknown, and the location and quantity of hazardous building materials within Bayview Hunters Point is also unknown, the specific potential for worker and public exposure to hazardous building materials were not evaluated in the Bayview Hunters Point Redevelopment Plan EIR. Potential exposure to hazardous materials must be evaluated on a case-by-case basis and will be subject to appropriate regulatory oversight.

Based on the nature and extent of identified sites containing hazardous materials, as well as historical and current land uses within Bayview Hunters Point, the potential exists to encounter hazardous substances in the soil or groundwater during excavation and grading activities. Contaminated material may require special handling and disposal requirements if removed from a site. If hazardous substances are encountered during implementation of the Bayview Hunters Point Redevelopment Plan, the need for site investigations and remediation will be determined on a case-by-case basis by the appropriate regulatory agency.

Rincon Hill Plan EIR

According to the Rincon Hill Plan EIR, the Rincon Hill Downtown Residential Mixed-Use (DTR) District will require all parking to be located below street grade, in contrast to current zoning, which may result in greater disturbance of soils than under previous development patterns in Rincon Hill. Furthermore, the Rincon Hill Plan and associated rezoning will allow and encourage mixed, high-density residential development in the majority of Rincon Hill, presumably leading to increased development activity compared to both the existing conditions and to future conditions under existing zoning rules. Depending on the extent and nature of soil or groundwater contamination, if any, on a particular site, the increase in subgrade excavation may result in worker exposure to petroleum hydrocarbons, lead, polychlorinated biphenyls, creosote-treated lumber, and other contaminants. An owner or contractor who

submits plans for any excavation of soil must meet the appropriate regulatory requirements for sampling and analysis of contaminated soil. For any soil excavation determined to be within the "Maher" area (generally, bayward of the historic shoreline), compliance with the Maher Ordinance would require additional testing of subsurface soil to determine the potential magnitude and extent of soil contamination. If the aforementioned sampling identifies surface and/or subsurface contamination in areas subject to ground disturbance, the area will have to be remediated in accordance with the standards, regulations, and determinations of local, state, and federal regulatory agencies.

Prior to conducting any remediation activities, a Site Health and Safety Plan will be prepared pursuant to state and federal requirements and guidelines to ensure worker safety. This plan will require soil characterization, dust control during demolition, excavation, and construction; minimization of construction equipment exhaust, implementation of protocols for managing stockpiled and excavated soils, site security or prevent unauthorized entry, construction worker meetings to provide information about site security measures and reporting contingency procedures, and, where groundwater contamination is identified, protocols for managing groundwater during construction to minimize worker end public exposure. Site characterization will involve investigation to identify old or abandoned underground tanks, buried debris, or unidentified contamination that may be present.

Potential exposure to asbestos, lead-based paint and PCB-containing materials and resulting adverse health effects are possible if building demolition and renovation occurs within a subsequent development site. Sampling of suspected asbestos-containing material prior to demolition is standard practice; if asbestos is identified, it must be abated in accordance with applicable law prior to construction. Lead-based paint and PCB-containing materials may also be encountered as a result of dust-generating activities that include removal of nails; sanding, welding, and material disposal during construction of subsequent development projects. These materials may expose workers and persons in close proximity, including off-site locations, which may result in adverse health effects. Precautions and work practices in compliance with Chapter 36 of the San Francisco Building Code will ensure no adverse affects due to work involving lead paint, while items containing PCBs are required be managed as hazardous waste and must be handled in accordance with OSHA worker protection requirements.

Because development pursuant to the Rincon Hill Plan will be largely residential, the use of chemicals and other hazardous materials will be limited primarily to common household items. To the extent that commercial land uses were to employ hazardous materials, business users might be required to develop a Hazardous Materials Business Plan if applicable, in conformance with Article 21 of the Health Code.

San Francisco ensures fire safety primarily through provisions of the Building Code and the Fire Code. Existing and new buildings are required to meet standards contained in these codes. In addition, the final building plans for any new residential project greater than two units are reviewed by the San Francisco Fire Department (as well as the DBI), in order to ensure conformance with these provisions. Subsequent development projects would be required conform to these standards, which (depending on the building type) may include development of an emergency procedure manual and an exit drill plan. In this way,

potential fire hazards (including those associated with hydrant water pressure and emergency access) will be mitigated to a less than significant level during the permit review process under the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, there is a high potential to encounter hazardous materials during construction activities in many parts of the Eastern Neighborhoods because of the presence of 1906 earthquake fill, previous and current land uses associated with the use of hazardous materials, and known or suspected environmental cases. Much of the East SoMa and Central Waterfront neighborhoods as well as the northern portions of the Mission District and Showplace Square/Potrero Hill neighborhood are currently zoned for light industry and have been historically used for industrial purposes. In addition, several Production, Distribution, and Repair (PDR) businesses are located outside of the industrially zoned land, particularly in the Mission District and Showplace Square/Potrero Hill neighborhoods. USTs for the storage of gasoline, diesel, waste oil, and other chemicals are also commonly found at sites throughout San Francisco, and the environmental database review for the Eastern Neighborhoods Rezoning and Area Plans EIR identified over 200 sites with historic USTs within the Eastern Neighborhoods. Environmental contamination resulting from leaking USTs alone has been documented at 313 sites in the Eastern Neighborhoods. Without implementation of proper precautions, workers or the community may be exposed to hazardous materials during excavation, grading, and dewatering, or during related site investigation and remediation activities. Existing regulations for facility closure, UST closure, and investigation and cleanup of soil and groundwater will ensure implementation of measures to protect workers and the community from exposure to hazardous materials during construction. Compliance with these regulations by the City, private developers, and contractors, including proper handling and disposal of excavated materials, will minimize worker, public, and environmental exposure to hazardous materials in the soil or groundwater during construction. Thus, potential short-term construction impacts associated with hazardous materials in soils or groundwater is considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Depending on the location and development activity, several procedures will apply if hazardous materials are encountered during construction: Investigation and Remediation of Hazardous Materials in Soil and Groundwater; UST Closure; Disposal of Soil and Groundwater; Discharge of Contaminated Groundwater; Protection of Worker Safety; and a process for Underground Utility Construction.

Bedrock in the Showplace Square/Potrero Hill area and extending into the northern portions of the Mission District and Central Waterfront neighborhood is known to contain chrysotile, a naturally occurring asbestos mineral that can be a human health hazard if it becomes airborne. Construction requiring excavation of the bedrock in this area and of fill materials obtained from this bedrock may cause this asbestos to become airborne and in the absence of proper controls. On-site workers and the public may be exposed to the airborne asbestos unless appropriate control measures are implemented. For construction activities, specific measures must be implemented in accordance with the Asbestos Airborne

Toxic Control Measure (ATCM). The site operator must ensure the implementation of all specified dust mitigation measures throughout the construction project. Assuming compliance with the asbestos ATCM, as required, potential impacts related to exposure to naturally occurring asbestos in soil and rock during construction is considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Hazardous building materials are likely to be present in older structures within the Eastern Neighborhoods and may include asbestos-containing materials, lead-based paint, electrical equipment such as transformers and fluorescent light ballasts that contain PCBs or di (2 ethylhexyl) phthalate (DEHP), and fluorescent lights containing mercury vapors. Demolition or renovation of existing structures may result in potential exposure of workers or the community to hazardous building materials during construction, without proper abatement procedures, and future building occupants may be exposed if hazardous building materials are left in place. Soil around a structure may also become contaminated by hazardous building materials if these materials were released to the environment. Pursuant to existing regulations, the City will be required to ensure that a hazardous building material survey(s) or audit(s) is conducted for all subsequent development that results from implementation of the Eastern Neighborhoods Rezoning and Area Plans prior to construction or demolition activities. Identified hazardous building materials will be abated in accordance with applicable federal, state, and local laws as described below prior to demolition or renovation. Because of compliance with these regulations, impacts related to exposure to hazardous building materials are considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Although implementation of the Eastern Neighborhoods Rezoning and Area Plans will likely result in a decrease in the number of permitted users of hazardous materials under each option, compared to existing conditions (as well as the no project alternative), core PDR uses such as small trucking operations, apparel manufacturing, food and flower distribution centers, construction material suppliers, paper manufacturing, large publishing operations, and large showrooms will be retained in each of the districts. Even though these businesses would be required to comply with applicable federal, state, and local regulations, there will remain the potential for an accidental release of hazardous materials or petroleum products, such as a tank leak, spill, or rupture, which may potentially affect public health and/or the environment unless appropriate precautions are in place. The proximity of residential uses to industrial or commercial uses throughout the Eastern Neighborhoods will further increase the potential for public exposure during an accidental release of hazardous materials. However, compliance with regulations relating to the handling and transport of hazardous materials and waste will minimize the risk for accidental releases and will ensure safe handling of hazardous materials and wastes at permitted facilities. Furthermore, new businesses introduced to the Eastern Neighborhoods will implement newer and improved technology for handling and storage of hazardous materials that will further reduce the risk of a release that may affect public health or the environment.

Development subsequent to adoption of the Eastern Neighborhoods Rezoning and Area Plans will encourage new construction in the Eastern Neighborhoods that may result in an increased numbers of

residents and employees who, in turn, may result in congestion in the event of an emergency evacuation. Compliance with the San Francisco Building Code and Fire Code through the City's ongoing permit review process will ensure that potential fire hazards related to redevelopment activities (including those associated with hillside development, hydrant water pressure, and emergency access) will be minimized during the permit review process and that future projects will not interfere with an existing emergency response or emergency evacuation plan. Therefore, this impact is considered to be less than significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, most existing businesses in the Market and Octavia Neighborhood currently process, use or generate hazardous substances (cleaners, solvents, etc.). If any of these businesses currently generate hazardous substances, they may possibly increase production of hazardous materials and hazardous wastes. Although the risk of upset can never be completely eliminated, any future production or generation of hazardous materials will not be expected to create a public health or environmental hazard if adequate safety precautions are employed in accordance with existing federal state and local laws and regulations pertaining to hazardous materials and wastes. Thus, this impact is considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Demolition or renovation of existing structures or building materials associated with development related to implementing of the Market and Octavia Neighborhood Plan may result in exposure to hazardous building materials, such as asbestos, lead, mercury or PCBs, with associated public health concerns. If demolition or renovation activities were to occur, it is likely that many of the structures to be demolished or renovated were constructed during the period when asbestos, lead and PCBs were commonly used in building materials. Fluorescent lights containing mercury vapors are still commonly used in many buildings. Sampling of suspected asbestos containing material prior to demolition is standard practice; if asbestos is identified, it must be abated in accordance with applicable law prior to construction. Lead-based paint and PCB-containing materials may also be encountered as a result of dust generating activities that include removal of walls, sanding, welding, and material disposal during construction of subsequent development projects. These materials may expose workers and persons in close proximity including off-site locations, which may result in adverse health effects. Precautions and work practices in compliance with Chapter 36 of the San Francisco Building Code would ensure no adverse affects due to work involving lead paint, while items containing PCBs are required to be managed as hazardous waste and must be handled in accordance with OSHA worker protection requirements. Project related construction and demolition activities may encounter wood pilings or railroad ties that are treated with creosote, which must be disposed of in an approved landfill. However, removal of timber piling is not expected to create hazards to worker health and safety according to the Market and Octavia Neighborhood Plan EIR, as creosote would not be handled in a liquid form, and creosote concentrations in the pilings are likely to have decreased over time.

Implementation of the measures described above, including compliance with asbestos abatement and PCB disposal regulations will reduce potential impacts associated with construction-related hazardous materials to a less than significant level, according to the Market and Octavia Neighborhood Plan EIR. With required implementation of Air Resources Board regulations, contained in Section 9310S: Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying and Surface Mining Operations, any impacts due removal or disturbance of serpentine soils will be reduced to a less than significant effect. Proper control measures, including frequent wetting of the soils are sufficient to lessen airborne asbestos hazards to a less than significant level under the Market and Octavia Neighborhood Plan EIR.

In general, impacts to soils, including impacts to leaking underground storage tanks or serpentine formations, would be determined by demolition and reconstruction on individual affected parcels. Site characterization will involve investigation to identify old or abandoned underground tanks, buried debris, or unidentified contamination that may be present. In particular, physical investigations or comprehensive soil testing will be needed to determine the presence of underground tanks beneath previously extant buildings. If an unidentified tank containing hazardous materials or vapors or buried hazardous debris were uncovered or disturbed during excavation, construction workers, visitors, or occupants may experience adverse health effects. Therefore, wherever ground-disturbing activities are proposed in areas where there is a potential for the presence of underground storage tanks, ground-penetrating radar, magnetic surveys, or other appropriate methods will be employed to locate previously unknown tanks. If any tanks are identified, the site owner or contractor will coordinate with the Department of Public Health to determine whether the tank must be removed or may be closed in place. The Site Health and Safety Plan will include procedures for implementing a contingency plan in the event unanticipated subsurface hazards are discovered during construction.

As discussed previously, subsequent development projects will be required to conform to the standards in the City's Building Code and the Fire Code and through review of building plans by SFFD and DBI. In this way, potential fire hazards (including those associated with hydrant water pressure and emergency access) would be mitigated during the permit review process.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as "other areas". This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to hazards and hazardous materials due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the "other areas". Potential hazards and hazardous materials impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay

would not result in a significant environmental impact related to hazards and hazardous materials and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to create significant hazard to the public or environment through the transport, use, or disposal of hazardous materials, create significant hazard to the public or environment through the release of hazardous materials, emit hazardous emissions or handle hazardous materials within one-quarter mile of an existing or proposed school, located on a hazardous materials site that subsequently creates a significant hazard to the public or the environment, located within two miles of a public or private airport and cause safety hazards for people working or residing in the area, interfere with adopted emergency response or evacuation plans, or expose people or structures to significant risk of loss, injury, or death, due to fires would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to hazards and hazardous materials. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to hazards and hazardous materials would be less than significant.

Cumulative Impacts

The geographic context for cumulative hazards and hazardous materials impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project site or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to hazards and hazardous materials. As

discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to hazards and hazardous materials. The contribution of potential impacts from the proposed project to the cumulative hazards and hazardous materials impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

Q. MINERAL/ENERGY RESOURCES

INTRODUCTION

This section addresses potential project impacts related to mineral resources, the availability of locally-important mineral resource recovery sites, and the consumption of large amounts of fuel, water, or energy.

ENVIRONMENTAL SETTING

Mineral

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 1975.¹ 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.²

Energy Resources

Pacific Gas and Electric Company (PG&E) supplies electricity and natural gas to the City.³ Hydro, oil, and natural gas comprise the primary energy sources used to generate electricity, with lesser amounts coming from geothermal and nuclear fuels. Most natural gas is shipped either from Canada or the Southwest, with the balance coming from California producers. PG&E will be shifting to an increased deployment of renewable, alternate energy resources such as solar, geothermal, co-generation, and wind. This energy policy envisions and encourages a similar energy future for the City.

The Hetch Hetchy Water and Power (HHWP) system is a conglomerate of dams, hydroelectric plants, reservoirs, aqueducts, pipelines and transmission lines operated by the San Francisco Public Utilities Commission which provides drinking water to the City of San Francisco and several Bay Area counties.⁴ The HHWP also provides hydroelectric power for San Francisco municipal uses and for sale to irrigation districts and public utilities. Water flows by gravity through 150 miles of pipelines and tunnels from the crest of the Sierras to San Francisco. As it flows, HHWP puts the water to work. It turns the turbines in four hydroelectric powerhouses, generating approximately 1.6 billion kilowatt hours of renewable energy

¹ California Division of Mines and Geology, *Open File Report 96-03 and Special Report 146 Parts I and II*.

² City and County of San Francisco, Planning Department, *Environmental Protection Element of the General Plan*.

³ *Id.*

⁴ San Francisco Public Utilities Commission, *Hetch Hetchy Water and Power*, website: http://sfwater.org/Dept.cfm/MC_ID/18/MSC_ID/134/MO_ID/20, accessed July 12, 2009.

each year. Hundreds of miles of transmission and distribution lines move the electricity from the powerhouses to the San Francisco Bay Area.

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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;
- 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; or
- Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner.

Impact Evaluation

The majority of the project area is within the geographic boundaries of the following area plan EIRs: Bayview Hunters Point Redevelopment Plan EIR, Rincon Hill Plan EIR, Eastern Neighborhoods Rezoning and Area Plans EIR, and Market and Octavia Neighborhood Plan EIR. The areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. Mineral and energy resources impacts related to the area plans and “other areas” are summarized below.

Bayview Hunters Point Redevelopment Plan EIR

According to the Bayview Hunters Point Redevelopment Plan EIR, implementation of the Bayview Hunters Point Redevelopment Plan will result in the consumption of energy in the form of electricity, natural gas, and fuel (gasoline and diesel), during both construction and operation of new buildings. New and remodeled buildings resulting from the Bayview Hunters Point Redevelopment Plan will be regulated by the energy efficiency standards of Title 24. Compliance with Title 24 will be enforced by the San Francisco Department of Building Inspection (DBI) through the building permit review process before commitment of energy resources will occur. Compliance with Title 24 will ensure that new buildings resulting from implementation of the Bayview Hunters Point Redevelopment Plan will not use fuel or energy in a wasteful manner. It is reasonable to expect that the availability of electricity, natural gas, and other fuels will be sufficient to meet energy demand over the next 10 to 20 years. Development of the Bayview Hunters Point Redevelopment Plan will not encourage activities that result in the use of large amounts of fuel or energy. According to the Bayview Hunters Point Redevelopment Plan EIR, the Bayview Hunters Point Redevelopment Plan will not have a significant impact related to energy resources.

Impacts related to mineral resources were not discussed in the Bayview Hunters Point Redevelopment Plan EIR.

Rincon Hill Plan EIR

Impacts related to mineral and energy resources were not discussed in the Rincon Hill Plan EIR.

Eastern Neighborhoods Rezoning and Area Plans EIR

According to the Eastern Neighborhoods Rezoning and Area Plans EIR, since the Eastern Neighborhoods is already developed, future evaluation or designation of the area will not affect or be affected by the Eastern Neighborhoods Rezoning and Area Plans. There are no operational mineral resource recovery sites in the Eastern Neighborhoods whose operations or accessibility will be affected by the construction or operation of projects proposed by the Eastern Neighborhoods Rezoning and Area Plans. The Eastern Neighborhoods Rezoning and Area Plans do not propose specific development projects, but will facilitate the construction of both new residential units and commercial buildings. Development of these uses will not result in use of large amounts of fuel, water, or energy in the context of energy use throughout the City and region. The energy demand for individual buildings will be typical for such projects and will meet, or exceed, current state and local codes and standards concerning energy consumption, including Title 24 of the California Code of Regulations enforced by DBI. The Eastern Neighborhoods do not include any natural resources routinely extracted, and the proposed rezoning will not result in any natural resource extraction program. Impacts related to mineral and energy resources were not considered to be significant under the Eastern Neighborhoods Rezoning and Area Plans EIR.

Market and Octavia Neighborhood Plan EIR

According to the Market and Octavia Neighborhood Plan EIR, future development in the Market and Octavia Neighborhood will be required to meet current state and local codes concerning energy consumption, including Title 24. The DBI will enforce compliance with Title 24 through the building permit review process. Development resulting from implementation of the Market and Octavia Neighborhood Plan will adequately conserve energy. Therefore, impacts related to energy resources were considered to be less than significant under the Market and Octavia Neighborhood Plan EIR.

Impacts related to mineral resources were not discussed in the Market and Octavia Neighborhood Plan EIR.

Other Areas

As previously stated, the areas outside those covered by a previously prepared programmatic EIR are referred to as “other areas”. This Draft EIR assumes that 10 percent of job growth and directly related new development would be due to programs implemented through the EZ. Furthermore, implementation of the EZ has the potential to encourage new businesses to move into existing, vacant commercial and/or industrial buildings. However, implementation of the EZ is unlikely to result in new impacts related to

mineral and energy resources due to the fact that new development directly related to the EZ overlay job growth would be subject to the land use controls of the governing zoning use districts, height and bulk districts, and independent CEQA review within the “other areas”. Potential mineral and energy resources impacts created by new development resulting from EZ-related job growth would be subject to independent CEQA review on a project-by-project basis. Therefore, implementation of the EZ overlay would not result in a significant environmental impact related to mineral and energy resources and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Because no new impacts specific to implementation of the EZ would occur, impacts having the potential to result in the loss of availability of a mineral resource of value to the region or state, result in the loss of availability of a locally important mineral resource recovery site, or result in activities related to consumption of large amounts of fuel, water, or energy would be less than significant.

Conclusion

Because the EZ is only an overlay designation and does not propose any specific development, no additional development not previously evaluated would be generated in Bayview Hunters Point, Rincon Hill, the Eastern Neighborhoods, or the Market and Octavia Neighborhood plan areas as a result of the EZ. As discussed above, the degree to which development within the “other areas” could be accelerated under the EZ would be incremental. Furthermore, any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts related to mineral and energy resources. Any new development would also be subject to the applicable requirements and standards set forth in the Bayview Hunters Point Redevelopment Plan and related zoning controls, Rincon Hill Plan, Eastern Neighborhoods Rezoning and Area Plans, Market and Octavia Neighborhood Plan, and “other areas”. In addition, the EZ would not result in impacts of greater significance than those analyzed in the abovementioned EIRs because the EZ would not involve greater development than what was evaluated in the relevant EIR. Development created by the implementation of the EZ in “other areas” would be subject to independent CEQA review for potential impacts. Because no new impacts specific to implementation of the EZ would occur in the project area, impacts related to mineral and energy resources would be less than significant.

Cumulative Impacts

The geographic context for cumulative mineral and energy resources impacts is the San Francisco Bay Area. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to mineral and energy resources. As discussed throughout this

Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to mineral and energy resources. The contribution of potential impacts from the proposed project to the cumulative mineral and energy resources impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

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V. ENVIRONMENTAL SETTING AND IMPACTS

R. AGRICULTURAL RESOURCES

INTRODUCTION

This section addresses potential project impacts related to conversion of Farmland, zoning for agricultural use, and changes to the existing environment that result in conversion of Farmland to non-agricultural use.

ENVIRONMENTAL SETTING

Farmland Mapping and Monitoring Program (FMMP)

The California Department of Conservation's (DOC) FMMP was established in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the Natural Resources Conservation Service (NRCS), a division of the United States Department of Agriculture.¹ The intent of the NRCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of this nationwide mapping effort, NRCS developed a series of definitions known as the Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production, which included physical and chemical characteristics of soils, as well as specified land use characteristics. Important Farmland Maps are derived from NRCS soil survey maps using LIM criteria. The FMMP map identifies eight classifications of land capability, which are described below.²

- **Prime Farmland** is farmland with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce continued high yields. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
- **Farmland of Statewide Importance** is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
- **Unique Farmland** is farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated

¹ California Department of Conservation (DOC), Division of Land Resource Protection, *A Guide to the Farmland Mapping and Monitoring Program*, 2004 edition, website: http://www.conservation.ca.gov/dlrp/fmmp/pubs/Documents/fmmp_guide_2004.pdf, accessed July 12, 2009.

² DOC, Division of Land Resource Protection, *Soil Criteria and Mapping Categories excerpted from the FMMP Guidelines*, website: http://www.consrv.ca.gov/dlrp/fmmp/pubs/Documents/soil_criteria.pdf, accessed July 12, 2009.

orchards or vineyards as found in some climactic zones in California. The land must have been cropped at some time during the two update cycles prior to the mapping date.

- **Farmland of Local Importance** is land deemed to be important to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.
- **Grazing Land** is land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, the University of California Cooperative Extension Service, and other groups interested in knowing the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- **Urban and Built-Up Land** is land occupied by structures with a building density of at least one unit to one and one-half acres, or approximately six structures to a ten-acre parcel.
- **Other Land** is land which does not meet the criteria of any other category.

The City is highly developed with urban uses and is therefore not agricultural in nature. The entire City is identified as Urban and Built-Up Land by the DOC and does not contain any important farmland.³

IMPACTS

Significance Thresholds

The proposed project would normally have a significant effect on the environment if it would:

- 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;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland of Statewide Importance, to non-agricultural use.

Impact Evaluation

The project area is located in the City of San Francisco, an urban area, and therefore is not agricultural in nature. As discussed previously, the California Department of Conservation designates no land within the City boundaries as Williamson Act properties or important farmland. The EZ would not convert Farmland

³ DOC, *Division of Land Resource Protection, Farmland Mapping and Monitoring Program, Important Farmland in California, 2004, website:*
ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/statewide/2006/fmmp2006_11_17.pdf, accessed July 12, 2009.

to a non-agricultural use, would not conflict with agricultural zoning or Williamson Act contracts, nor cause other changes that would lead to the conversion of Farmland of Statewide Importance to nonagricultural use.

The EZ is an overlay designation and does not propose any specific development. Though the project could accelerate development within the EZ area, it is not possible to quantify the rate at which development could be accelerated under the EZ because (as previously discussed) specific development is not proposed under the project. Nonetheless, the EZ does not consist of any specific development activities or facilities that would have the potential to have a significant impact related to agricultural resources because development associated with the EZ would be conducted in accordance with existing zoning regulations and subject to independent CEQA review for potential impacts. Therefore, the EZ would have no significant environmental impact related to agricultural resources and no additional mitigation measures would be required to reduce impacts specific to the EZ implementation. Furthermore, potential environmental impacts of future development projects would be analyzed on a project-by-project basis.

Cumulative Impacts

The geographic context for cumulative agricultural resources impacts is the entire City of San Francisco. Cumulative impacts occur when significant impacts from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. This would include the demolition of existing structures or new construction in the project area or immediately adjacent to its project boundaries resulting from past, present and reasonably foreseeable future projects combining with similar impacts from the proposed project. The cumulative effect of development within the City could contribute to impacts related to agricultural resources. As discussed throughout this Draft EIR, implementation of the EZ by itself could have the potential to accelerate growth. However, the EZ is an overlay designation and would not directly result in significant impacts because any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans that are intended to reduce impacts to agricultural resources. The contribution of potential impacts from the proposed project to the cumulative agricultural resources impacts would not be cumulatively considerable. Cumulative impacts are considered less than significant.

MITIGATION AND IMPROVEMENT MEASURES

Mitigation Measures

No mitigation measures are warranted by the proposed project.

Improvement Measures

No improvement measures are warranted by the proposed project.

VI. OTHER CEQA ISSUES

A. GROWTH INDUCING IMPACTS

Section 15126.2(d) of the CEQA Guidelines requires a discussion of the ways in which a project could induce growth. This includes ways in which a project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Section 15126.2(d) of the CEQA Guidelines states:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The EZ designation seeks to foster more investment in areas already set aside for development. The establishment of an EZ would not change any land use designations, and would not include any specific development; rather, it is an overlay designation providing performance based tax incentives. Any new development resulting from project implementation would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans. While the EZ would induce some amount of growth as compared to existing conditions, this impact is not considered environmentally significant because the growth that would occur has already been anticipated by the City and incorporated into the City's planning efforts through the adoption of area plans and the ongoing Housing Element adoption process.

B. SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts which cannot be avoided. Specifically, Section 15126.2(b) states:

Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

Based on the analysis contained in Section V (Environmental Setting and Impacts) of this Draft EIR, no significant unavoidable environmental impacts would occur with implementation of the EZ.

C. SIGNIFICANT IRREVERSIBLE IMPACTS

Section 15126.2(c) of the CEQA Guidelines states that the “[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely.” Section 15126.2(c) further states that “[i]rretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

The establishment of an EZ would not change any land use designations, and would not include any specific development; rather, it is an overlay designation. Therefore, the project would not directly result in the consumption of nonrenewable resources.

The EZ may accelerate development that is consistent with the San Francisco General Plan, governing area plans, design guidelines, zoning codes (including development standards), and other applicable land use plans. Future development projects within the EZ have the potential to result in the consumption of nonrenewable resources. New development that may be stimulated by project implementation would be subject, on a project-by-project basis, to independent CEQA review, during which time environmental impacts resulting from nonrenewable resource consumption would be analyzed and appropriate mitigation measures would be prescribed as needed to reduce impacts to the extent feasible.

D. AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

The NOP was published on August 25, 2006. Five responses to the NOP were received. Known areas of controversy associated with the proposed project include traffic, utilities, geology/soils, and aesthetics. Comments submitted during the scoping process addressed a variety of topics. Commenters requested that the EIR analyze the following:

- Traffic impacts (see Section V.F [Transportation and Circulation]);
- Land use conflicts with residential uses (see Section V.B [Land Use]);
- Displacement of residents (see Section V.D [Population and Housing]);
- Loss of off-street parking (see Section V.F [Transportation and Circulation]);
- Lack of playgrounds (see Section V.J [Recreation] and V.L [Public Services]);
- Utilities distribution infrastructure (see V.K [Utilities and Service Systems]);
- Biological resources (see Section V.M [Biological Resources]);
- Impacts related to earthquake faults, seismic activity, liquefaction, sink holes, and rupture of underground storage facilities (see Section V.N [Geology and Soils]);

- Financial contribution to improvements of underground water delivery system (see Section V.K [Utilities and Service Systems]); and
- Unknown hazardous materials (see Section V.P [Hazards/Hazardous Materials]).

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VII. ALTERNATIVES

INTRODUCTION

CEQA requires that an EIR describe a range of reasonable alternatives to the project or to the location of the project that could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the project. An EIR should also evaluate the comparative merits of the alternatives. This chapter sets forth potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines (Section 15126.6) pertaining to the alternatives analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, which are identified in Section IV (and listed below) of this EIR, or would be more costly.
- The “No Project” alternative shall be evaluated along with its impact. The “No Project” alternative analysis shall discuss the existing conditions at the time the notice of preparation is published.
- The range of alternatives required in an EIR is governed by a “rule of reason”; therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives (as described in CEQA Guidelines Section 15126.6[f][1]) are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative whose effects could not be reasonably identified, whose implementation is remote or speculative, or one that would not achieve the basic project objectives.

ALTERNATIVE CONSIDERED BUT REJECTED

Alternative Location

It was determined that the “Alternative Location” scenario would be infeasible. First, the project objectives are specifically tailored to the EZ area and a specific targeted population within those areas. The location of the proposed EZ designation has been carefully selected based on the California Department of Housing and Community Development’s qualifying criteria as discussed in Section IV (Project Description) on page IV-18. The proposed EZ would encompass the entirety of areas within the jurisdiction that qualifies for the designation. Therefore, to establish an alternative location for an EZ would not meet the project’s basic objectives.

Secondly, an alternative location would not avoid or substantially lessen any of the significant effects of the project. As described in Section V, impacts associated with implementation of the EZ would be less than significant. Nonetheless, even if significant impacts were identified, it is possible that implementation of the EZ in an alternative location could result in impacts to environmental issue areas such as: population and housing; transportation and circulation; recreation; utilities and service systems; and public services. The project as proposed would be consistent with the San Francisco General Plan. An alternative location may require land that was not previously planned for development to receive tax incentives which ultimately would influence decision makers to change the land use designation and rezone the land to a use that would encourage commercial or industrial development. The impacts caused by an alternative location would likely exceed the impacts caused by the proposed project in the environmental issue areas identified above.

SELECTED ALTERNATIVES

Alternative A: No Project Alternative

Under the “No Project” alternative, the EZ designation would not occur. This alternative assumes that the affected businesses would not receive any tax incentives. Under the “No Project” alternative, the development within the EZ area would be consistent with existing land use controls, including the San Francisco General Plan and Planning Code. The rate of development would not potentially be accelerated through incentives afforded by an Enterprise Zone. There are no physical differences between this alternative and the proposed project, with the exception of potentially accelerated development under the proposed project. The “No Project” alternative would not meet the basic objectives of the proposed project.

Implementation of the “No Project” alternative would not prevent development in the EZ, but rather would not provide the various investment incentives that would be available under the proposed project from being available to affected businesses. As such, environmental impacts would not be expected to occur at an equal rate as the proposed project. Under the “No Project” alternative, these impacts would occur, albeit at a less-than-significant level, but would occur over a longer period of time. The “No

Project” alternative has no additional advantage over the proposed project in terms of the reduction of any environmental impacts.

Alternative B: Reduced Size Alternative

Under the “Reduced Size” alternative, the EZ would be reduced to areas where the existing infrastructure and public services provide could be most easily increased or expanded to accommodate new growth within the foreseeable future. Much of the land that would be eliminated from the EZ would be in the less densely developed portions of the EZ area. This land is located further from existing public services, although these areas are currently served by, and would likely continue to be served by, the public service providers identified in Sections V.J (Recreation), V.K (Utilities and Service Systems), and V.L (Public Services). The land that is located closer to Major Arterials (as designated in the General Plan Transportation Element), such as Broadway, Embarcadero, Geary, Folsom, Harrison, Bryant, Brannan, King, Third, Sixth, Seventh (north of Bryant), Eighth, Ninth, Tenth, and Division Streets, along with César Chávez Street (Guerrero to Third), South Van Ness Avenue, Potrero Avenue, and Evans Avenue (between César Chávez and Third), is closer to public services and would be more easily served by existing services. Impacts related to population and housing would not differ as development associated with the EZ would be consistent with the San Francisco General Plan, associated population projections, and other land use controls.

Physically, this alternative would reduce the size of the EZ; therefore, the potential to accelerate development from the EZ tax incentive would be reduced. This alternative, like the proposed project, does not provide any land use changes, does not preclude development, and does not have any direct environmental impacts. This alternative assumes that the land excluded would not receive any tax incentives, but would still be developed consistent with the San Francisco General Plan. This alternative assumes that there would not be any other economic development stimulants that could accelerate development in these areas. This alternative fails to meet the basic objectives of the proposed project by not implementing the incentives available through designation of the EZ.

As discussed above, no significant impacts were identified in the Draft EIR. As such, the “Reduced Size” alternative would not eliminate environmental impacts. Because of the nature of the “Reduced Size” alternative, impacts to aesthetics; population and housing; cultural resources; transportation and circulation; recreation; utilities and service systems; public services; and hydrology and water quality would also be less than under the proposed project because less land would be affected by implementation of the project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an EIR alternatives analysis include designation of an “environmentally superior” alternative. As no potentially significant impacts were identified with the project as proposed, there is no “environmentally superior” alternative because there are no significant impacts to mitigate by proposing

an alternative. Table VII-1 summarizes the environmental impacts associated with the project and the alternatives.

**Table VII-1
Comparison of Impacts of Alternatives to Impacts of Proposed Project**

	Proposed Project	A: No Project Alternative	B: Reduced Size Alternative
Description	EZ designation	No EZ designation	EZ would be reduced to areas where the existing infrastructure and public services could be most easily increased or expanded to accommodate new growth within the foreseeable future
Impact			
Land Use	No significant impacts.	No significant impacts.	No significant impacts.
Aesthetics	No significant impacts.	No significant impacts.	No significant impacts.
Population and Housing	No significant impacts.	No significant impacts.	No significant impacts.
Cultural Resources	No significant impacts.	No significant impacts.	No significant impacts.
Transportation and Planning	No significant impacts.	No significant impacts.	No significant impacts.
Noise	No significant impacts.	No significant impacts.	No significant impacts.
Air Quality	No significant impacts.	No significant impacts.	No significant impacts.
Wind and Shadow	No significant impacts.	No significant impacts.	No significant impacts.
Recreation	No significant impacts.	No significant impacts.	No significant impacts.
Utilities and Service Systems	No significant impacts.	No significant impacts.	No significant impacts.
Public Services	No significant impacts.	No significant impacts.	No significant impacts.
Biological Resources	No significant impacts.	No significant impacts.	No significant impacts.
Geology and Soils	No significant impacts.	No significant impacts.	No significant impacts.
Hydrology and Water Quality	No significant impacts.	No significant impacts.	No significant impacts.
Hazards/Hazardous Materials	No significant impacts.	No significant impacts.	No significant impacts.
Miner/Energy Resources	No significant impacts.	No significant impacts.	No significant impacts.
Agricultural Resources	No significant impacts.	No significant impacts.	No significant impacts.

VIII. EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

LEAD AGENCY

Planning Department, City and County of San Francisco

1650 Mission Street, Suite 400

San Francisco, California 94103

Environmental Review Officer:	Bill Wycko
Environmental Coordinator:	Brett Bollinger
EIR Supervisor:	Rick Cooper

EIR CONSULTANT

Christopher A. Joseph and Associates

115 Sansome Street, Suite 1002

San Francisco, California 94104

Senior Project Manager:	Erin Efner
Environmental Planner:	Jessica Viramontes
Environmental Planner:	Jasmine Patel
Assistant Environmental Planner:	Rachel Mohr

PROJECT SPONSOR

Mayor's Office of Economic and Workforce Development, City and County of San Francisco

City Hall, Room 448

1 Dr. Carlton B. Goodlett Place

San Francisco, CA 94102

Managing Deputy Director:	Jennifer Entine Matz
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SUBCONSULTANT

Geotechnical Consultants, Inc.

500 Sansome Street, Suite 402

San Francisco, California, 94111

President:	'Neel' Neelakantan, Ph.D., P.E., G.E.
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APPENDIX A: NOTICE OF PREPARATION & INITIAL STUDY



PLANNING DEPARTMENT

City and County of San Francisco • 1660 Mission Street, Suite 500 • San Francisco, California • 94103-2414

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ZONING ADMINISTRATOR
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MAJOR ENVIRONMENTAL
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COMMISSION CALENDAR
INFO 558-6422

INTERNET WEB SITE
WWW.SFGOV.ORG/PLANNING

August 25, 2006

To Responsible Agencies, Trustee Agencies, and Interested Parties:

**RE: CASE NO. 2006.0954E—SAN FRANCISCO ENTERPRISE ZONE
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT**

A Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the above-referenced project, described below, has been issued by the Planning Department. An Initial Study has also been prepared to provide more detailed information regarding the proposed project and the environmental issues to be considered in the DEIR. The Notice Of Preparation (NOP)/Initial Study is either attached or is available upon request from **Viktoriya Mass**, whom you may reach at **(415) 558-5955** or in writing at the above address. This notice is being sent to you because you have been identified as potentially having an interest in the project or the project area.

The California Housing and Community Development (HCD) Department administers the State's Enterprise Zone Program. This Program provides special state and local incentives to businesses by designating Enterprise Zones throughout the State. The legislative purpose of the Enterprise Zone Program is to stimulate business and industrial growth in the depressed areas of the State. Businesses located within an Enterprise Zone may receive individual or corporate state tax incentives as well as local incentives, including local regulatory relief.

On May 28, 1992, certain areas of San Francisco were designated as an Enterprise Zone. The current San Francisco Enterprise Zone is scheduled to expire in 2007. Therefore, the City and County of San Francisco is engaged in the task of completing an HCD Application for Designation of a new Enterprise Zone (the proposed project). Generally, the Enterprise Zone would encompass the eastern part of the City and would include the Bayview, South of Market, Financial and Chinatown Districts as well as parts of Visitacion Valley, Potrero Hill, Mission, North Beach, Russian Hill, Civic Center and Western Addition Districts. The following Census Tracts are proposed to be part of the Enterprise Zone: 101, 106, 107, 113, 114, 115, 117, 118, 120, 121, 122, 123, 124, 125, 159, 161, 162, 163, 176.01, 176.02, 177, 178, 179.01, 180, 201, 208, 209, 226, 227.03, 228.01, 228.03, 230.01, 230.02, 231.01, 231.02, 231.03, 232, 233, 234, 264.01, 264.02, 605.02, 606, 607, 609, and 610.

The Planning Department has decided to prepare an Environmental Impact Report (EIR) prior to any final decision regarding whether to approve or disapprove the project. The purpose of the EIR is to provide information about potential significant physical environmental effects of the proposed project, to identify possible ways to minimize the significant effects, and to describe and analyze possible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City to approve or to disapprove the project. However, prior to making any such decision, the decision makers must review and consider the information contained in the EIR.

Certain portions of the Enterprise Zone would overlap with existing or proposed specific area plans and redevelopment area plans for which EIRs have been prepared and certified. As part of its California Environmental Quality Act (CEQA) review, the Planning Department would consider the proposed project in light of the aforementioned certified EIRs to determine whether the proposed project is within the scope of the analysis performed in those documents.

Comments concerning the scope of the EIR are welcomed. In order for your concerns to be fully considered throughout the environmental review process, we would appreciate receiving them by **September 25, 2006**. Written comments should be sent to Paul Maltzer, Environmental Review Officer, San Francisco Planning Department, 1660 Mission Street, Suite 500, San Francisco, CA 94103.

If you work for an agency that is a Responsible or a Trustee Agency, we need to know the views of your agency as to the scope and content of the environmental information that is relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. We will also need the name of the contact person for your agency. If you have questions concerning environmental review of the proposed project, please contact **Viktoriya Mass** at **(415) 558-5955**.



PLANNING DEPARTMENT

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Notice Of Preparation of an Environmental Impact Report

Date of Notice: August 25, 2006

Lead Agency: Planning Department, City and County of San Francisco
1660 Mission Street, San Francisco, CA 94103

Agency Contact Person: Viktoriya Mass **Telephone:** (415) 558-5955

Project Title: 2006.0954E – San Francisco Enterprise Zone
Project Sponsor/Contact: Mayor's Office of Economic and Workforce Development
Jennifer Entine Matz, Deputy Director, Business Affairs **Telephone:** (415) 554-6511

Project Address: Generally, the proposed project would encompass the eastern portion of the City
Census Tracts: 101, 106, 107, 113, 114, 115, 117, 118, 120, 121, 122, 123, 124, 125, 159, 161, 162, 163, 176.01, 176.02, 177, 178, 179.01, 180, 201, 208, 209, 226, 227.03, 228.01, 228.03, 230.01, 230.02, 231.01, 231.02, 231.03, 232, 233, 234, 264.01, 264.02, 605.02, 606, 607, 609, and 610.
City and County: San Francisco

Project Description: The California Housing and Community Development (HCD) Department administers the State's Enterprise Zone Program. This Program provides special state and local incentives to businesses by designating Enterprise Zones throughout the State. The legislative purpose of the Enterprise Zone Program is to stimulate business and industrial growth in depressed areas of the State. Businesses located within an Enterprise Zone may receive individual or corporate state tax incentives as well as local incentives, including local regulatory relief.

On May 28, 1992, certain areas of San Francisco were designated as an Enterprise Zone. The current San Francisco Enterprise Zone is scheduled to expire in 2007. Therefore, the City and County of San Francisco is engaged in the task of completing an HCD Application for Designation of a new Enterprise Zone (the proposed project). Generally, the Enterprise Zone would encompass the eastern portion of the City and would include the Bayview, South of Market, Financial and Chinatown districts as well as parts of Visitacion Valley, Potrero Hill, Mission, North Beach, Russian Hill, Civic Center and Western Addition districts.

Certain portions of the Enterprise Zone would overlap with existing or proposed specific area plans and redevelopment area plans for which Environmental Impact Reports (EIRs) have been prepared and certified. As part of its California Environmental Quality Act (CEQA) review, the Planning Department would consider the proposed project in light of the aforementioned certified EIRs to determine whether the proposed project is within the scope of the analysis performed in those documents.

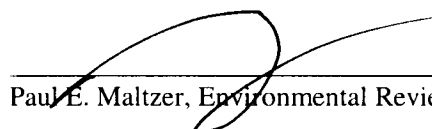
Building Permit Application Number(s), if Applicable: Not applicable.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT. AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15063 (Initial Study), 15064 (Determining Significant Effect), 15065 (Mandatory Findings of Significance) and the following reasons, as documented in the Initial Study for the project, which is attached.

Written comments on the scope of the EIR will be accepted until the close of business on September 25, 2006. Written comments should be sent to Paul Maltzer, San Francisco Planning Department, 1660 Mission Street, Suite 500, San Francisco, CA 94103.

State Agencies. We need to know the views of your agency as to the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency. Thank you.

Date 8/24/06


Paul E. Maltzer, Environmental Review Officer

INITIAL STUDY
CASE NO. 2006.0954E – SAN FRANCISCO ENTERPRISE ZONE

A. PROJECT DESCRIPTION

The California Housing and Community Development (HCD) Department administers the State's Enterprise Zone Program. This Program provides special state and local incentives to businesses by designating Enterprise Zones throughout the State. Enterprise Zones are designated for a period of 15 years. State law currently authorizes forty-two Enterprise Zones in California and allows existing Enterprise Zones to expand up to 15 percent in geographic size. Twenty-three of the existing Enterprise Zones expire in 2006-2007.

The legislative purpose of the Enterprise Zone Program is to stimulate business and industrial growth in the depressed areas of the State. The other purposes are to establish a program to help attract business and industry to the state, to help retain and expand existing state business and industry, and to create increased job opportunities for all Californians. The Enterprise Zone Program targets economically distressed areas throughout California. Special state and local incentives encourage business investment and promote the creation of new jobs. Enterprise Zones are competitively designated based upon distress criteria, such as poverty and unemployment levels, and the local government's capacity to carry out an economic development program. Businesses located within an Enterprise Zone may receive individual or corporate state tax incentives as well as local incentives, including local regulatory relief.

On May 28, 1992, certain areas of San Francisco were designated as an Enterprise Zone. The San Francisco Enterprise Zone area generally includes the following districts: Bay View Hunters Point/South Bayshore; Chinatown; the Mission; Mission Bay Project Area; Potrero Hill; South of Market; the Tenderloin; and Western Addition.¹ The current San Francisco Enterprise Zone is scheduled to expire in 2007. Therefore, the City and County of San Francisco is engaged in the task of completing an HCD Application for Designation of a new Enterprise Zone (the proposed project).

Generally, the proposed project would encompass the eastern part of the City. Certain portions of the Enterprise Zone would overlap with existing or proposed specific area plans and redevelopment area plans for which Environmental Impact Reports (EIRs) have been prepared and certified. As part of the California Environmental Quality Act (CEQA) review, the Planning Department would consider the proposed project in light of the aforementioned certified EIRs to determine whether the proposed project is within the scope of the analysis performed in those documents.

¹ City and County of San Francisco, Office of the Treasurer & Tax Collector, Business Tax Section, *2005 Enterprise Zone Tax Credit, A Guide for Employers*, December 2005.

B. PROJECT LOCATION

The proposed project would result in the designation of portions of the city as an Enterprise Zone. Generally, the Enterprise Zone would encompass the eastern part of the City and would include the Bayview, South of Market, Financial and Chinatown districts as well as parts of Visitacion Valley, Potrero Hill, Mission, North Beach, Russian Hill, Civic Center and Western Addition districts. The following Census Tracts are proposed to be part of the Enterprise Zone: 101, 106, 107, 113, 114, 115, 117, 118, 120, 121, 122, 123, 124, 125, 159, 161, 162, 163, 176.01, 176.02, 177, 178, 179.01, 180, 201, 208, 209, 226, 227.03, 228.01, 228.03, 230.01, 230.02, 231.01, 231.02, 231.03, 232, 233, 234, 264.01, 264.02, 605.02, 606, 607, 609, and 610. Figure 1 on page 3 shows the area proposed to be designated as the Enterprise Zone. Figure 1 breaks down the Enterprise Zone Area into three categories: The Eligible Zone, the Commercial Addition and the Industrial Addition. The regulations for Enterprise Zone designation require that applicants establish an area that consists of an eligible area in combination with a commercial and/or industrial area. The commercial area must be contiguous or contained within the eligible area. The industrial area must be contiguous or adjacent to the eligible area. The industrial or commercial areas must be zoned 51 percent or more for commercial or industrial use, respectively.

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the Planning Code or Zoning Map, if applicable.		<u>To Be Determined</u>
Discuss any conflicts with any adopted plans and goals of the City or Region, if applicable.		<u>To Be Determined</u>
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.		<u>To Be Determined</u>

The compatibility of the proposed project with existing zoning and plans will be discussed in the EIR.

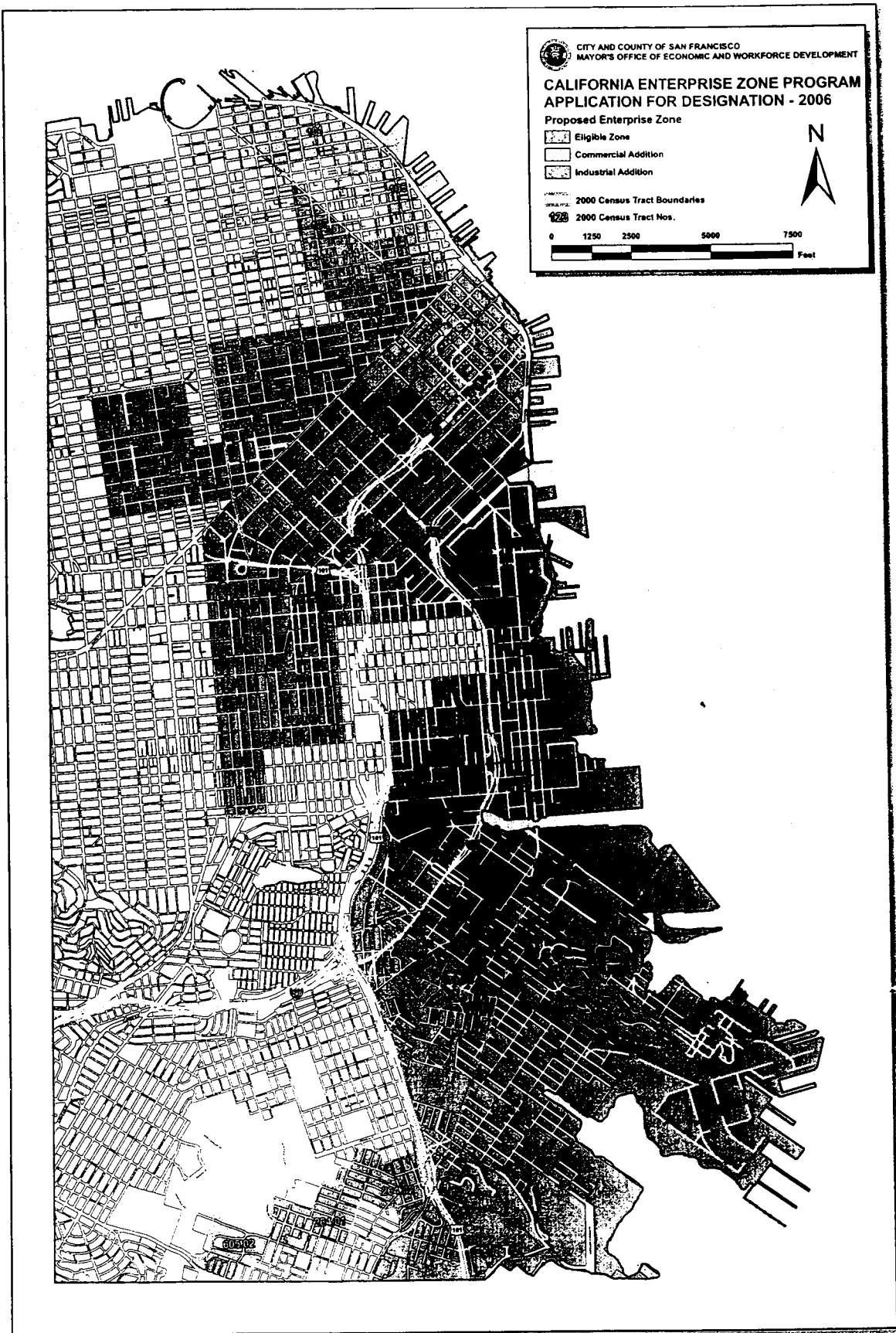


FIGURE 1
PROJECT LOCATION

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.

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Land Use | <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Geology and Soils |
| <input checked="" type="checkbox"/> Aesthetics | <input checked="" type="checkbox"/> Wind and Shadow | <input checked="" type="checkbox"/> Hydrology and Water Quality |
| <input checked="" type="checkbox"/> Population and Housing | <input checked="" type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Hazards/Hazardous Materials |
| <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Utilities and Service Systems | <input checked="" type="checkbox"/> Mineral/Energy Resources |
| <input checked="" type="checkbox"/> Transportation & Circulation | <input checked="" type="checkbox"/> Public Services | <input checked="" type="checkbox"/> Agricultural Resources |
| <input checked="" type="checkbox"/> Noise | <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Mandatory Findings of Signif. |

E. EVALUATION OF ENVIRONMENTAL EFFECTS

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
1. LAND USE AND LAND USE PLANNING— Would the project:					
a) Physically divide an established community?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
c) Have a substantial impact upon the existing character of the vicinity?					<u>To Be Determined</u>

The land use and land use planning impacts of the proposed project will be discussed in the EIR.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
2. AESTHETICS—Would the project:					
a) Have a substantial adverse effect on a scenic vista?					<u>To Be Determined</u>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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?			<u>To Be Determined</u>		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		

The aesthetics impacts of the proposed project will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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)?			<u>To Be Determined</u>		
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?			<u>To Be Determined</u>		
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			<u>To Be Determined</u>		

The proposed project's impacts on population and housing will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
4. CULTURAL 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 <i>Planning Code</i> ?					<u>To Be Determined</u>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?					<u>To Be Determined</u>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?					<u>To Be Determined</u>
d) Disturb any human remains, including those interred outside of formal cemeteries?					<u>To Be Determined</u>

The proposed project's impacts on cultural resources will be discussed in the EIR

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
5. TRANSPORTATION AND CIRCULATION— Would the project:					
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?					<u>To Be Determined</u>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways (unless it is practical to achieve the standard through increased use of alternative transportation modes)?					<u>To Be Determined</u>
c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?					<u>To Be Determined</u>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?					<u>To Be Determined</u>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
e) Result in inadequate emergency access?			<u>To Be Determined</u>		
f) Result in inadequate parking capacity that could not be accommodated by alternative solutions?			<u>To Be Determined</u>		
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., conflict with policies promoting bus turnouts, bicycle racks, etc.), or cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity or alternative travel modes?			<u>To Be Determined</u>		

The proposed project's impacts on transportation and circulation will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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?			<u>To Be Determined</u>		
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<u>To Be Determined</u>		
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			<u>To Be Determined</u>		
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
g) Be substantially affected by existing noise levels?					<u>To Be Determined</u>

The noise impacts of the proposed project will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
7. AIR QUALITY					
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.					
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?					<u>To Be Determined</u>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?					<u>To Be Determined</u>
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)?					<u>To Be Determined</u>
d) Expose sensitive receptors to substantial pollutant concentrations?					<u>To Be Determined</u>
e) Create objectionable odors affecting a substantial number of people?					<u>To Be Determined</u>

The proposed project's impacts on air quality will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
8. WIND AND SHADOW—Would the project:					
a) Alter wind in a manner that substantially affects public areas?					<u>To Be Determined</u>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?					<u>To Be Determined</u>

The wind and shadow impacts of the proposed project will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
9. 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?					<u>To Be Determined</u>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?					<u>To Be Determined</u>
c) Physically degrade existing recreational resources?					<u>To Be Determined</u>

The proposed project's impacts on recreation will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
10. UTILITIES AND SERVICE SYSTEMS—Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			<u>To Be Determined</u>		
g) Comply with federal, state, and local statutes and regulations related to solid waste?			<u>To Be Determined</u>		

The proposed project's impacts on utilities and service systems will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
11. 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?			<u>To Be Determined</u>		

The public services impacts of the proposed project will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
12. 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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		

The proposed project's impacts on biological resources will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
13. 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:					<u>To Be Determined</u>
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.)					<u>To Be Determined</u>
ii) Strong seismic ground shaking?					<u>To Be Determined</u>
iii) Seismic-related ground failure, including liquefaction?					<u>To Be Determined</u>
iv) Landslides?					<u>To Be Determined</u>
b) Result in substantial soil erosion or the loss of topsoil?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
f) Change substantially the topography or any unique geologic or physical features of the site?					<u>To Be Determined</u>

The geology and soils impacts of the proposed project will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
14. HYDROLOGY AND WATER QUALITY— Would the project:					
a) Violate any water quality standards or waste discharge requirements?					<u>To Be Determined</u>
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)?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
f) Otherwise substantially degrade water quality?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?					<u>To Be Determined</u>

The proposed project's impacts on hydrology and water quality will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
15. 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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
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?					<u>To Be Determined</u>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?					<u>To Be Determined</u>
h) Expose people or structures to a significant risk of loss, injury or death involving fires?					<u>To Be Determined</u>

The hazards and hazardous materials impacts of the proposed project will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
16. 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?			<u>To Be Determined</u>		
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?			<u>To Be Determined</u>		
c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?			<u>To Be Determined</u>		

The proposed project's impacts on mineral and energy resources will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
17. AGRICULTURE 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.					
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?			<u>To Be Determined</u>		
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?			<u>To Be Determined</u>		
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland of Statewide Importance, to non-agricultural use?			<u>To Be Determined</u>		

The proposed project's impacts on Agricultural Resources will be discussed in the EIR.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant with Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
----------------	---------------------------------------	---	-------------------------------------	------------------	-----------------------

18. 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? | <u>To Be Determined</u> |
| 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.) | <u>To Be Determined</u> |
| c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly? | <u>To Be Determined</u> |

F. ALTERNATIVES

Alternatives to the proposed project will be defined and described in the EIR. At a minimum, the alternatives analyzed in the EIR will include a No Project Alternative in which the project area would remain in its existing condition and would not be designated as an Enterprise Zone.

G. 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 8/24/06

Paul E. Maltzer
Environmental Review Officer
for
Dean L. Macris
Director of Planning

APPENDIX B: RESPONSES TO THE NOTICE OF PREPARATION



Diablo Vista District
845 Casa Grande Road
Petaluma, California 94954

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SEP 14 2006

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

Victoriya Wise
San Francisco Planning Department
1660 Mission Street, fifth Floor
San Francisco, CA 94103

RE: NOP DEIR SCH # 2006082139

Dear Ms. Wise,

As you may be aware, the California Department of Parks and Recreation owns and operates Candlestick State Recreation Area. Pursuant to the San Francisco Enterprise Zone map, as indicated in the DEIR NOP, Candlestick has been identified in Figure 1 of the DEIR NOP. Unfortunately the key in Figure 1 is illegible which makes any interpretation of the map difficult at best. If possible could you issue me a color rendition of Figure 1?

State Parks looks forward to providing comment on the DEIR once it becomes available. Please place me on your mailing list.

Sincerely,

Stephen Bachman
Associate Park & Recreation Specialist

cc: Don Monahan, District Superintendent
State Clearinghouse
California Department of Water Resources

DEPARTMENT OF TRANSPORTATION

111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5559
TTY (800) 735-2929



*Flex your power!
Be energy efficient!*

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SEP 08 2006

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

September 5, 2006

SF000027
SCH2006082139

Ms. Viktoriya Wise
San Francisco Planning Department
1660 Mission Street, Fifth Floor
San Francisco, CA 94103

Dear Ms. Wise:

San Francisco Enterprise Zone – Notice of Preparation

Thank you for including the California Department of Transportation (Department) in the early stages of the environmental review process for the San Francisco Enterprise Zone. The following comments are based on the Notice of Preparation. As lead agency, the San Francisco Planning Department is responsible for all project mitigation, including any needed improvements to state highways. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures. The project's traffic mitigation fees should be specifically identified in the Draft Environmental Impact Report. Any required roadway improvements should be completed prior to issuance of project occupancy permits. While an encroachment permit is only required when the project involves work in the State Right of Way (ROW), the Department will not issue an encroachment permit until our concerns are adequately addressed. Therefore we strongly recommend that the lead agency ensure resolution of the Department's CEQA concerns prior to submittal of the encroachment permit application. Further comments will be provided during the encroachment permit process; see the end of this letter for more information regarding the encroachment permit process.

The Department is primarily concerned with impacts to the State Highway system. Specifically, a detailed Traffic Impact Analysis (TIA) should identify impacts to the State Highway System. The TIA should include, but is not limited to the following:

1. Information on the project's traffic impacts in terms of trip generation, distribution, and assignment. The assumptions and methodologies used in compiling this information should be addressed.
2. Average Daily Traffic (ADT) and AM and PM peak hour volumes on all significantly affected streets and highways, including crossroads and controlling intersections.

3. Schematic illustration of the traffic conditions for: 1) existing, 2) existing plus project, and 3) cumulative for the intersections in the project area.
4. Calculation of cumulative traffic volumes should consider all traffic-generating developments, both existing and future, that would affect the State Highway facilities being evaluated.
5. Mitigation measures should consider highway and non-highway improvements and services. Special attention should be given to the development of alternate solutions to circulation problems that do not rely on increased highway construction.
6. All mitigation measures proposed should be fully discussed, including financing, scheduling, implementation responsibilities, and lead agency monitoring.

We encourage the San Francisco Planning Department to coordinate preparation of the study with our office, and we would appreciate the opportunity to review the scope of work. Please see the Caltrans' "Guide for the Preparation of Traffic Impact Studies" at the following website for more information: <http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf>

We look forward to reviewing the TIA, including Technical Appendices, and DEIR for this project. Please send two copies to the address at the top of this letterhead, marked ATTN: Lisa Carboni, Office of Transit and Community Planning.

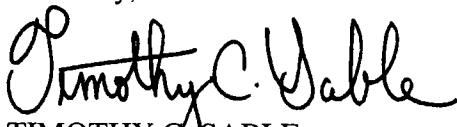
Encroachment Permit

Any work or traffic control within the State ROW requires an encroachment permit that is issued by the Department. Traffic-related mitigation measures will be incorporated into the construction plans during the encroachment permit process. See the following website link for more information: <http://www.dot.ca.gov/hq/traffops/developserv/permits/>

To apply for an encroachment permit, submit a completed encroachment permit application, environmental documentation, and five (5) sets of plans (in metric units) which clearly indicate State ROW to the address at the top of this letterhead, marked ATTN: Michael Condie, Office of Permits.

Should you have any questions regarding this letter, please call Lisa Carboni of my staff at (510) 622-5491.

Sincerely,


TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: Scott Morgan (State Clearinghouse)

PAUL MALTZER
ENVIRONMENTAL REVIEW OFFICE
SF Planning Dept
1660 MISSION STREET 500
SAN FRANCISCO CA 94103

RECEIVED

SEP 07 2006

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M.E.A.

Dear Mr. MALTZER,

IN REFERENCE TO CASE # 2006,0454E
THE NUISANCE DIST. ZONING PLAN CODED
PART OF CEASUS TRAILS 122, 123, 124, 125
& DOES THE PROPOSED ENTERPRISE ZONE
MY QUESTIONS & CONCERNS RELATED THERE TO:

IN LAND USE PLANNING § (b): How will
THIS PROPOSED ZONE CONFLICT WITH THE
NUISANCE PLANNING SAFEGUARDS FOR RESIDENTIAL
HOUSING.

IN AESTHETICS - UNDER § (c): ~~will~~ will THE
PROPOSED ZONE GENTRIFY THE NORTH OF
MARKET NEIGHBORHOOD KICKING OUT THE
LOW-INCOME, FIXED INCOME SENIOR & DISABLED
IN FAVOR OF MIDDLE INCOME WORKING FAMILIES -
AND AS A HIGH CRIME NEIGHBORHOOD HOW
WILL THE ENTERPRISE ZONE DEAL WITH THE

P. 2 of 6

FEDERAL, STATE, & LOCAL CRIME CONTAINMENT ZONE THE TL HAS BECOME, REMEMBERING THE MENTALLY ILL, HOMELESS, AIDS/HIV AND OTHERS CALL THE TL HOME TOO.

THE ABOVE WORKS INTO ITEM 3

POPULATION & HOUSING AS WELL AS AESTHETICS § 3(d)

IN SECTION 5 TRANSPORTATION & CIRCULATION AS YOU KNOW - THE TL HAS VERY LITTLE OFF-STREET PARKING & WE KEEP LOSING OUR OFF-STREET LOTS FOR HOUSING IN § (9)

NOW WILL THE E-Z. AFFECT THE LOOK OF OFF-STREET PARKING TO THE TL AND IN (2)

WILL THE PROPOSED INCREASE OF USES

DIRECTLY OR INDIRECTLY CAUSED BY RESULTS OF THE E-Z. CAUSE OUR SENIOR & DISABLED POPULATION NEARSHIPS IN CROSSING STREETS

IN (9) WILL THE E-Z. PROMOTE THE USE OF PARATransit TAXI SERVICE WHEN TAXI SERVICE IS NOT OFFERED TO NEW POTENTIAL RIDERS?

NEXT IN § - WIND & SHADE

WILL AS IN (A) AND PROJECT CONCERNS AND IMPACT

AS A RESULT OF THE E-Z. CAUSE INCREASE IN

WIND ON TL STREETS - EOP, ELIZ, JUNE

OR SHADE ON BOEDDERT PARK, TURK & HYDE

MINNIE PARK, TL CHILDREN'S PLAYGROUND

TL SCHOOL OR MICHUKO'S PARK? (15)

IN FACT ITEM 9 RECREATION.

AS WHEN THE BOAT PEOPLE WERE IN THE
80'S BROUGHT SOME CHILDREN TO THE TR
AND OUR LACK OF PLAY SPACE CREATED THE
TR PLAYGROUND, IS THE C. Z. AIMED AT
CREATING ANOTHER CHILD RUSH ON THE TR
OR A LACK OF CHILD RUSH ON THE TR BUT
A SENIOR RUSH HERE.

IN REFERENCE TO §10 - UTILITIES

WE HAD A ~~VALUE~~ VALUE BREAK NOT 20
YRS AGO AT EDDY & TAYLOR A 1890 VALUE
YOU TALK ABOUT WHAT'S UNDER OUR STREETS
AT EDDY & TAYLOR WE HAVE -

1890 PLUMBING, STEAM LINES, GAS LINES
1900 - 1950 PLUMBING, STEAM, GAS, ELECTRIC,
TELEPHONE, FIRE SUPPRESSION, RAILROAD TRACKS
CABLE CAR TRACKS & PIPES GOING NOWHERE
AT ALL

1950 - 1990 MORE APES

1990 - PRESENT - NEW GAS LINES, NEW MUNI
ELECTRIC BUS LINES, NEW, CABLE TV LINES,
NEW WATER LINES -

BUT NO NEW SEWER LINES

ALL UNDER OUR STREETS

QUESTION - IF THE C. Z. WOULD'S WITCILE ARE

YOU GOING TO PUT THE NEW LINES?

WE EVEN ~~AND~~ HAVE A RIVER UNDER JONES ST.

P. 4 of 6

IN #12 BIOLOGICAL RESOURCES
THE TL DOESN'T HAVE BIOLOGICAL
~~RESOURCES~~ RESOURCES PER SAY EXCEPT OUR
PARKS AND CITY HAVE ALREADY DESTROYED
THE BIOLOGICAL RESOURCE BY CUTTING DOWN
THE TREES IT GIVE CENTRAL HUMS &
THE SAN FRANCISCO SPARROW. ONLY
FOUND IN S.F. THE ONLY OF LIFE
IS IN THE SEWER SYSTEM OR
IN PEOPLE'S HOMES - UNLESS YOU
COUNT THE SEVERAL THOUSAND PLANTS
& WHEN IT RAINS SEAGULLS WE HAVE.
SO HOW CAN IT GET worse.

NOW TO MY INTEREST

#13 GEOLOGY & SOILS

- ① HOW MANY EARTHQUAKE FAULTS
RUN UNDER THE CITY PROPER - GSD
THE TL
- ② WHAT IS THE SEISMIC ACTIVITY RECORD
OF THE FAULTS
- ③ ARE ANY OF THE FAULTS CAPABLE
OF LAYING WASTE THE FRAGILE BALANCE
OUR UMB & OTHER BUILDINGS HAVE.
- ④ HOW INTENSE WOULD THE SHAKING BE
EG - 9200 MARKET - POWELL TO VAN NESS
ON LAND-FILL - BAY MARSH FILL (1890'S)

P. 5 of 6

THE MORE STABLE GROUP ABOVE
SEA LEVEL FROM EADY ST NORTH
TO BUS POST STREET

⑤ PROMOTE LIQUIFICATION IN BAY
FILL AREAS

⑥ CAUSE SINK HOLES

⑦ REPAIRS NOT YET RE DISCOVERED
OR TANKS, SEPTIC, OR OTHER FLOW TANKS -
OR NATURAL UNDERGROUND WELL SITES -

⑧

⑧ WOULD THIS ASSIST IN A GRANTABLE
ON CURTAXIS OF OUR 100+ YEAR OLD
SEWER SYSTEM.

#14 HYDROLOGY & WATER QUANTITY
IN A NEIGHBORHOOD THAT HAS 100+ YEARS
OLD WATER DELIVERY SYSTEMS - HOW DOES
E.Z. ACTIVITY TAX THAT SYSTEM

WE ALREADY WASH OUR STREETS BY DPW
WITH UNDERGROUND WATER - WE HAVE
A UNDERGROUND LAKE UNDER LIN AREA
AND A RIVER UNDER JONES ST. HOW
WOULD THE E.Z. IMPROVE OR DAMAGE
THIS ECO-SYSTEMS

P. 6 OF 6

#15 HAZARDS.

IN A NEIGHBORHOOD THATS DOTTED
WITH AUTO OIL GAUGES - WHAT
HAZ-MATS DONT WE KNOW ABOUT.
WITH A NEIGHBORHOOD THATS OVER
100+ YRS OLD, WHAT UNDERGROUND
HAZ-MAT-TANKS DONT WE KNOW
ABOUT AND HOW WOULD POSSIBLE
DEVELOPMENT BY THE E.I. EXPOSE
THAT HAZARD?

THANK YOU FOR ALLOWING ME TO
HAVE A ~~B~~ TIME TO READ AND
RESPOND TO THIS PROPOSED
PROJECT.

Sincerely
MANUS J. PHILLIPS

MY BUSINESS CARD IS POLE ENCLOSED
FOR FUTURE CORRESPONDENCE.

1430 HRS
3 SEPT 06

DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

455 Eighth St.
San Francisco, CA 94103
(415) 557-1094
(800) 735-2929 (TT/TDD)
(800) 735-2922 (Voice)



September 8, 2006

File No.: 335.9921.12446

Ms. Viktoriya Wise
San Francisco Planning Department
1660 Mission Street, Fifth Floor
San Francisco, CA 94103

RECEIVED

SEP 29 2006

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

Dear Ms. Viktoriya Wise:

The San Francisco Area Office of the California Highway Patrol (CHP) received the Notice Of Preparation for the San Francisco Enterprise Zone draft Environmental Impact Report (SCH) #2006082139.

Based on the limited scope of the information provided, we were unable to determine the impact such projects would have on departmental operations in the San Francisco Area.

Sincerely,


J. E. DIAL, Captain
Commander

Attachment

cc: Golden Gate Division
Special Projects Section



RECEIVED

SEP 19 2006

CITY & COUNTY OF S.F.
PLANNING DEPARTMENT
M E A

September 14, 2006

**NORTH BEACH
CHAMBER OF
COMMERCE**

Ms. Viktoriya Mass
SF Planning Department
1660 Mission Street, Suite 500
San Francisco, CA 94103-2414

Re: Case No. 2006.0954E - San Francisco
Enterprise Zone

Dear Ms. Mass:

This is to advise that this organization is supportive of any efforts being made by the City of San Francisco to extend and expand the existing Enterprise Zone in San Francisco.

We represent close to 200 businesses in North Beach, and some in the Polk Gulch area.

Sincerely,

Marsha Garland
Executive Director

Executive Director:

Marsha Garland

Officers:

Steve Sirianni, President

General Counsel:

Mark Romeo, Esq.
George Wolff, Esq.

Board of Directors:

Katie Balestrieri
Stefano Cassolato
William Dawson
Karen Fazzina
Rodney Fong
Carl Hilsz
Joy Jarrell
Lynn Jefferson
Mark Jennings
Claire Kozel
Bob Larive
Rev. John J. Malloy, SDB
Brandy Marts
Paul Mogannam
Fiachra O' Shaughnessy

Ex Officio:

Mel Figoni, Jr.

In 2004 North Beach was selected by the Project for Public Spaces as the Number 3 Neighborhood in All of North America and San Francisco's Number One Neighborhood by the Sunday, London Times

- NBCC is a dues supported association. It does not receive government funding and is not affiliated with the San Francisco Chamber of Commerce •
- 556 Columbus Avenue • San Francisco, CA 94133 • 415/989-2220 • Fax: 415/989-6427 •
- World Renowned Site of San Francisco's Little Italy • West Coast Home of the Beats •
- info@sfnorthbeach.org • www.sfnorthbeach.org •

APPENDIX C: FINAL EIR REQUEST POSTCARD

PLACE
POSTAGE
HERE

Brett Bollinger
San Francisco Planning Department
Major Environmental Analysis Division
1650 Mission Street, Suite 400
San Francisco, CA 94103

PLEASE CUT ALONG DOTTED LINES

PLEASE RETURN THIS POSTCARD TO REQUEST A COPY OF
THE FINAL ENVIRONMENTAL IMPACT REPORT

(NOTE THAT THE DRAFT EIR PLUS THE COMMENTS AND RESPONSES
DOCUMENT CONSTITUTE THE FINAL EIR)

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

Planning Department Case No. 2006.0954E,
San Francisco Enterprise Zone

Check one box: Please send me a copy of the Final EIR on CD-ROM.
 Please send me a paper copy of the Final EIR.

Signed: _____

Name: _____

Street: _____

City: _____ State: _____ Zip: _____
