
13. NOISE

This EIR chapter describes the existing noise environment in the Project Area, anticipated changes in that noise environment as a result of Project-facilitated development, and related significant adverse noise impacts and mitigation needs. The technical analyses and research for this chapter were conducted by the EIR acoustical consultants, Illingworth & Rodkin, Inc.

13.1 SETTING

13.1.1 Fundamentals of Acoustics

(a) Definitions of Noise. Noise is defined as unwanted sound. The effects of noise can range from interference with sleep, concentration, and communication, to physiological stress, and at higher noise levels, hearing loss. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. The term "decibels" and other related technical terms are defined in Table 13.1.

(b) Human Sensitivity to Noise. The method commonly used to quantify environmental noise involves measurement of all frequencies of sound, with an adjustment to reflect the fact that human hearing is less sensitive to low and high frequencies than to midrange frequencies. This measurement adjustment is called "A" weighting. A noise level so measured is called an A-weighted sound level (dBA).¹ Examples of typical A-weighted noise levels in the environment and industry are provided in Table 13.2.

Environmental noise fluctuates in intensity over time. Therefore, time-averaged noise level computations are typically used to quantify noise levels and determine impacts. The two average noise level descriptors most commonly used are L_{dn} and CNEL. L_{dn} , the day/night average noise level, is the 24-hour average, with a 10 dBA penalty added for nighttime noise (10:00 PM to 7:00 AM) to account for the greater human sensitivity to noise during this period. CNEL, the community equivalent noise level, is similar to L_{dn} , but adds a five-dBA penalty to evening noise (7:00 PM to 10:00 PM).

One way of anticipating a person's subjective reaction to a new noise is to compare the new noise with the existing noise environment to which the person has become adapted, i.e., the so-called "ambient" noise level. With regard to increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding this EIR chapter:

¹In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve.

Table 13.1
DEFINITIONS OF ACOUSTICAL TERMS

<u>Term</u>	<u>Definitions</u>
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 PM and 7:00 AM.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Single-Event Noise Exposure Level (SEL)	The sound exposure level of a single noise event (such as an aircraft flyover or a train passby) measured over the time interval between the initial and final times for which the sound level of the single event exceeds the background noise level.

SOURCE: Illingworth & Rodkin, Inc.

Table 13.2
TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

<u>At a Given Distance from Noise Source</u>	<u>A-Weighted Sound Level in Decibels</u>	<u>Noise Environments</u>	<u>Subjective Impression</u>
	140		
Civil Defense Siren (100')	130		
Jet Takeoff (200')	120		Pain Threshold
	110	Rock Music Concert	
Pile Driver (50')	100		Very Loud
Ambulance Siren (100')			
	90	Boiler Room	
Freight Cars (50')		Printing Press Plant	
Pneumatic Drill (50')	80	In Kitchen With Garbage Disposal Running	
Freeway (100')			
	70		Moderately Loud
Vacuum Cleaner (10')	60	Data Processing Center	
		Department Store	
Light Traffic (100')	50	Private Business Office	
Large Transformer (200')			
	40		Quiet
Soft Whisper (5')	30	Quiet Bedroom	
	20	Recording Studio	
	10		Threshold of Hearing
	0		

SOURCE: Illingworth & Rodkin, Inc.

- Except in carefully controlled laboratory experiments, a change of one dBA cannot be perceived.
- Outside of the laboratory, a three-dBA change is considered a just-perceivable difference.
- A change in noise level of at least five dBA is required before any noticeable change in community response would be expected.
- A 10-dBA increase is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

(b) Structural Attenuation. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed.

(c) Typical Noise Levels. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special-glass windows.

13.1.2 Sleep and Speech Interference

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 the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. 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 about equal to the L_{dn} , and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection, and most jurisdictions apply the same criterion for all residential uses.

13.1.3 Existing Noise Environment

Redevelopment Zone 1 (i.e., generally east of Bayshore Boulevard) is largely vacant except for limited outdoor commercial/industrial activity. Residential and commercial uses are interspersed throughout Redevelopment Zone 2 (i.e., Bayshore Boulevard and Leland Avenue). The primary noise sources in the Project Area are vehicular traffic along Bayshore Boulevard, railroad operations along the Caltrain/UPRR lines, operations of the Muni light rail system along the centerline of Bayshore Boulevard, vehicular traffic along local arterial and collector roadways traversing the area, and adjacent industrial and commercial activities.

13.1.4 Noise Monitoring Survey Results

For this EIR, Illingworth & Rodkin conducted a noise monitoring survey in the Project Area from June 13 to 16, 2006. The survey included long-term (48-hour) noise measurements at three locations and short-term (10-minute) noise measurement at four locations. The noise survey measurement locations are mapped on Figure 13.1. The noise measurement results for each

location are summarized in Table 13.3. The recorded hourly trends in noise levels at locations LT-1, LT-2, and LT-3 are shown on Figures 13.2 through 13.4.

Long-term measurement LT-1 was located in the Caltrain parking lot, approximately 50 feet to the nearest Caltrain tracks. The primary source of noise at this location was Caltrain traffic and vehicular traffic on Tunnel Avenue. As the trains passed by, noise levels typically reached a maximum (L_{max}) of 90 to 95 dBA. Typical hourly L_{eq} noise levels ($L_{eq(h)}$) ranged from 67 to 73 dBA during the day, and dropped to below 55 dBA at night when train passages did not occur. The calculated L_{dn} at LT-1 was 72 dBA.

Long-term measurement LT-2 was located along Bayshore Boulevard near Leland Avenue. The measurement position was about 55 feet from the centerline of Bayshore Boulevard. Existing land uses surrounding the measurement site are primarily commercial. The primary noise source at this location was vehicular traffic along Bayshore Boulevard. Hourly noise levels ranged from 73 to 76 dBA $L_{eq(h)}$ during the day and dropped to 65 dBA $L_{eq(h)}$ at night. The L_{dn} at this location ranged from 77 to 78 dBA.

Long-term measurement LT-3 was located on Leland Avenue near Peabody Street. The primary noise source at this location was vehicular traffic along Leland Avenue. Distant vehicular traffic noise from Bayshore Boulevard was audible in the absence of local traffic. Typical hourly noise levels ranged from 60 to 68 dBA $L_{eq(h)}$ during the day and dropped to lows of 48 to 50 dBA $L_{eq(h)}$ at night. The calculated L_{dn} at this location after removing data that was influenced by localized events was approximately 63 dBA.

Attended *short-term noise measurements* and corresponding vehicular traffic counts were conducted in 10-minute intervals along roadways throughout the Project Area on Thursday, June 13, 2006, between 12:20 PM and 1:20 PM. The short-term measurements are summarized in Table 13.3.

The recorded noise measurements in Table 13.3 indicate that existing noise levels in the Project Area range from approximately 62 to 63 dBA L_{dn} away from primary local noise sources to about 78 dBA L_{dn} adjacent to Bayshore Boulevard.

Local ambient noise levels may increase in the future along roadways that experience traffic increases. Future noise increases along the Caltrain/UPRR lines could occur also as a result of increased train traffic.

(b) Existing Caltrain Noise. Long-term noise measurement LT-1 was influenced primarily by Caltrain movements. The measured L_{dn} was 72 dBA at 50 feet from the train line. Based on the published Caltrain schedule, 96 Caltrain passenger trains pass through the Caltrain Bayshore station each weekday, with about 30 Caltrains on each Saturday/Sunday. The vast majority of the train passages are Caltrain passenger trains, which occur approximately four times per hour during weekdays (two northbound and two southbound), with additional train operations during commuting hours. Due to the location of the Caltrain station near the Project Area, passenger trains travel relatively slowly along this segment. Caltrain is not scheduled to operate between about 12:15 AM and 5:00 AM, although freight trains could operate during these times. From the measurement data, however, no train passages occurred during the late night period.

Railroad noise exposure in the Project Area vicinity is dependent on proximity to the train line and crossings where trains use warning bells and horns, as well as the existence of shielding



Legend

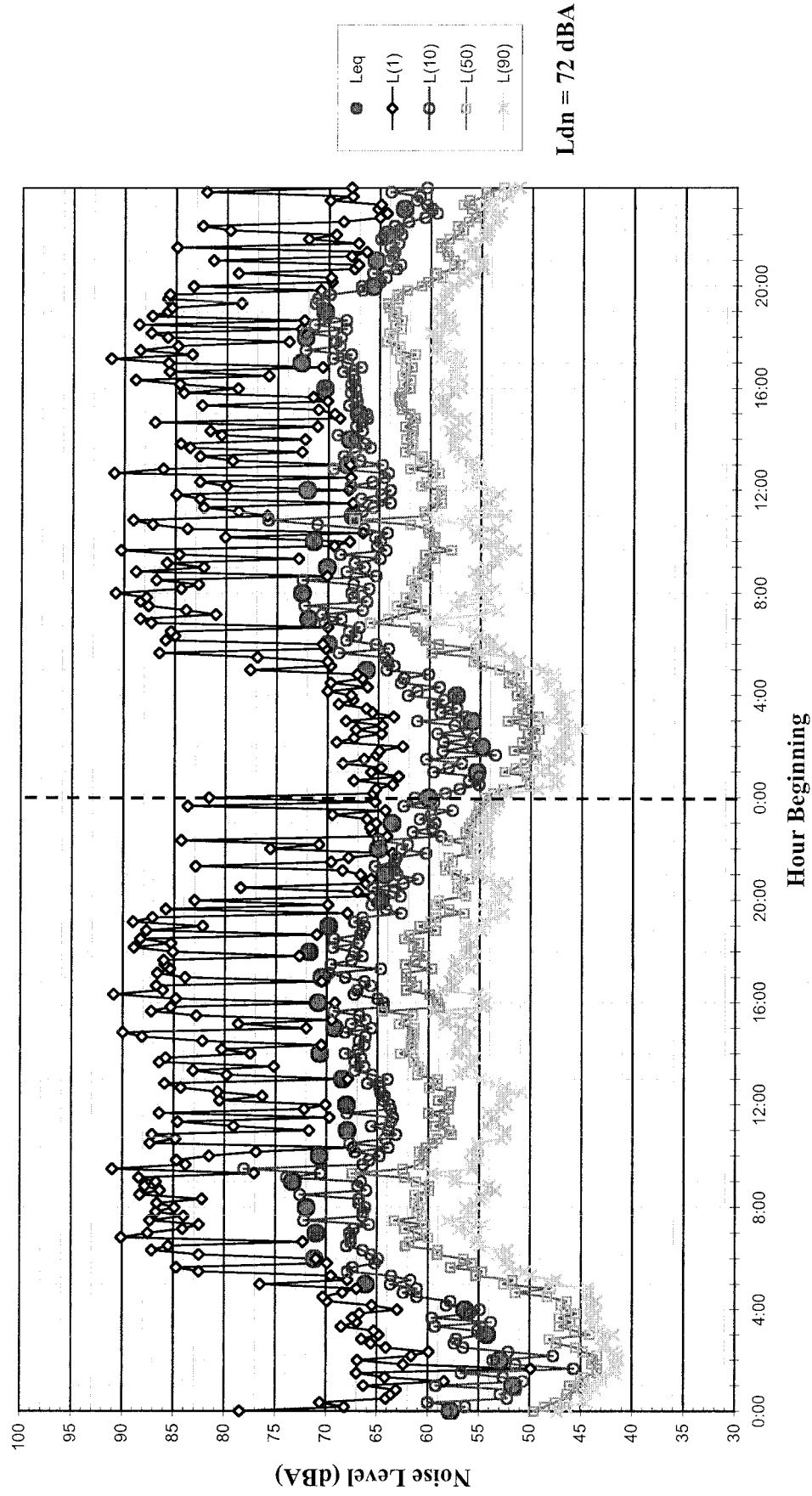
- LT-0 = LONG-TERM MEASUREMENT LOCATION
- ST-0 = SHORT-TERM MEASUREMENT LOCATION
- Locations correspond with those in Table 13.3.

SOURCE: Illingworth & Rodkin, Inc; TerraServer

Figure 13.1

NOISE MEASUREMENT LOCATIONS

**Noise Levels at LT-1
Caltrain Station, ~ 50 feet from nearest tracks
June 14-15, 2006**

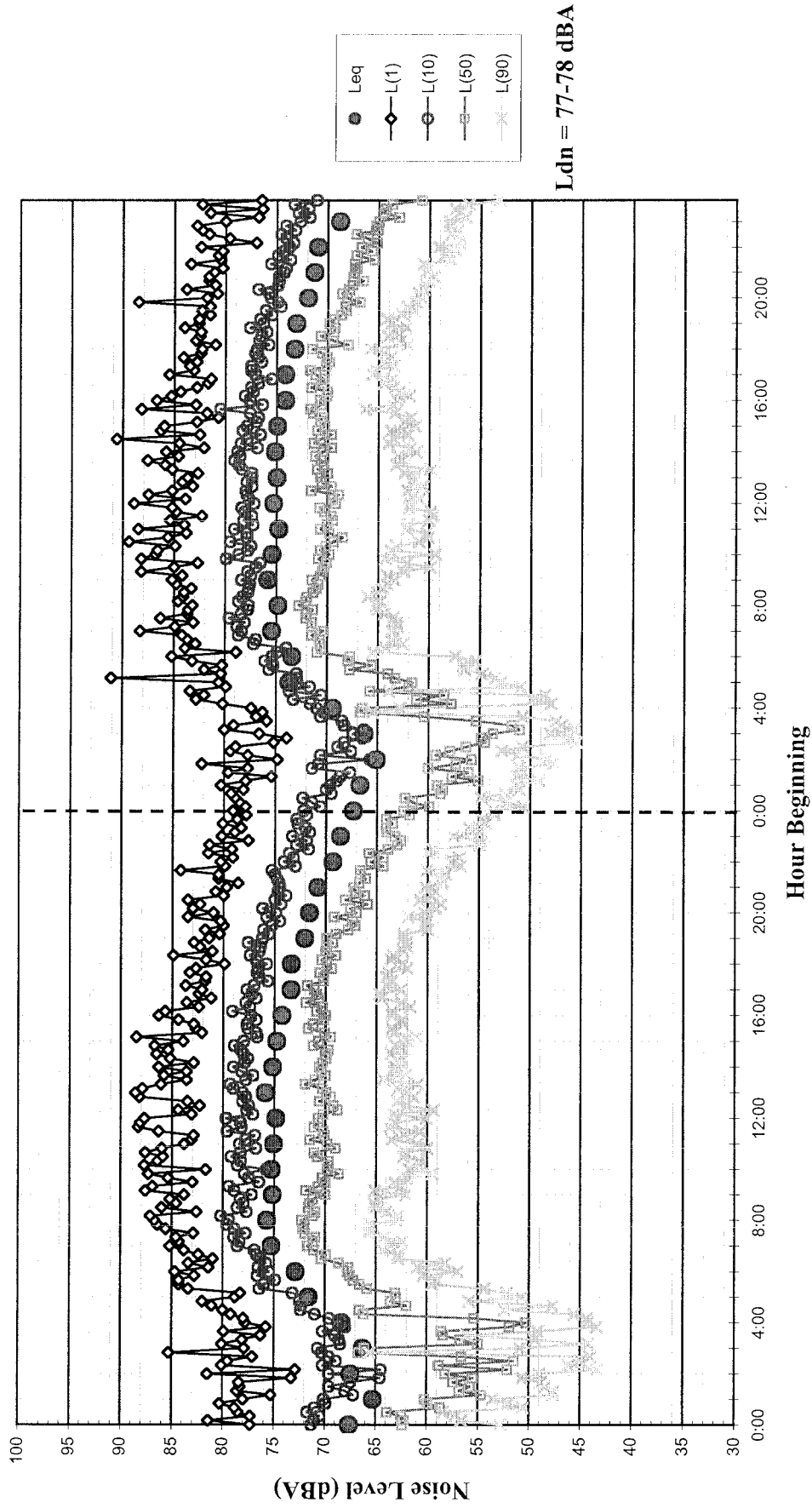


SOURCE: Ilingworth & Rodkin, Inc.

Figure 13.2

HOURLY TRENDS IN NOISE LEVELS AT LOCATION LT-1

Noise Levels at LT-2
~55 feet from Centerline of Bayshore Boulevard
June 14-15, 2006

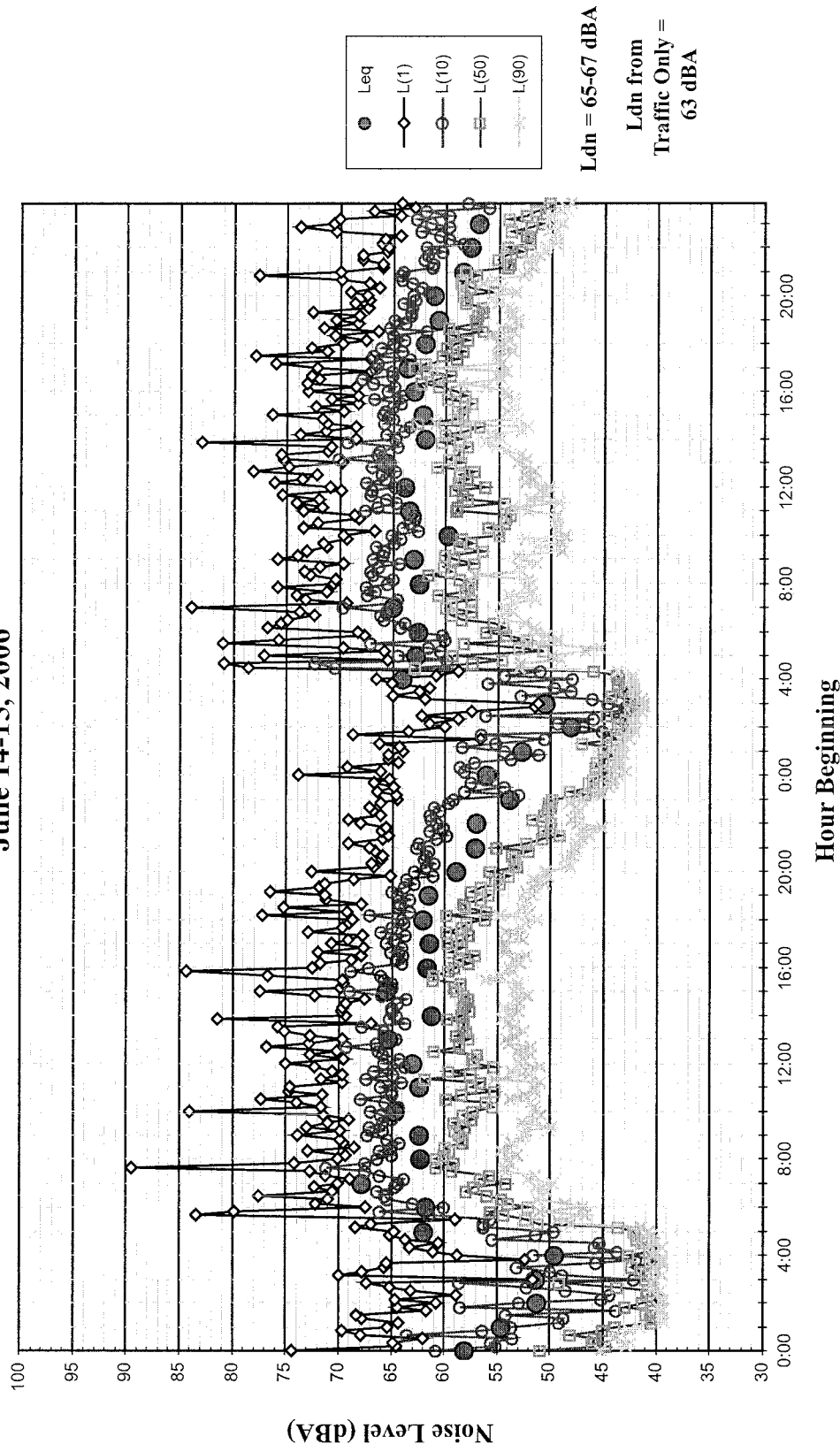


SOURCE: Illingworth & Rodkin, Inc.

Figure 13.3

HOURLY TRENDS IN NOISE LEVELS AT LOCATION LT-2

**Noise Levels at LT-3
~ 15 feet from Centerline of Leland Avenue
June 14-15, 2006**



SOURCE: Illingworth & Rodkin, Inc.

Figure 13.4

HOURLY TRENDS IN NOISE LEVELS AT LOCATION LT-3

Table 13.3
SUMMARY OF LONG-TERM AND SHORT-TERM NOISE MEASUREMENTS

Site	Location	Duration	L_{eq}	L_1	L_{10}	L_{50}	L_{90}	L_{dn}	Primary Noise Sources
LT-1	Caltrain near Tunnel Ave. ~50 feet to Caltrain tracks	48 hrs.	See Figure 13.2.					72	Caltrain operations
LT-2	Bayshore Blvd. near Leland Ave. ~55 feet to Bayshore Blvd. centerline	48 hrs.	See Figure 13.3.					78	Bayshore Blvd. traffic
LT-3	Leland Ave. near Desmond St. ~15 feet from centerline of Leland Ave.	48 hrs.	See Figure 13.4.					63	Leland Ave. traffic and local noise
ST-1	Raymond Ave. west of Alpha St. ~ 25 feet to Raymond Ave. centerline	10 min.	62	75	65	55	50		Raymond Ave. traffic and local noise
ST-2	Visitacion Ave. west of Talbert St. ~ 25 feet to Visitacion Ave. centerline	10 min.	66	78	67	56	48		Visitacion Ave. traffic and local noise
ST-3	Tunnel Ave. north of Visitacion Ave. ~ 25 feet to Tunnel Ave. centerline	10 min.	66	75	69	61	52		Tunnel Ave. traffic and local noise
ST-3	Blanken Ave. ~ 25 feet to Blanken Ave. centerline	10 min.	63	73	66	61	56		Blanken Ave. traffic and local noise

SOURCE: Illingworth & Rodkin, Inc.; June 13-16, 2006.

from intervening buildings. Day-night 24-hour average noise levels within about 75 feet of the Caltrain line can exceed 70 dBA L_{dn} . Caltrain/UPRR noise beyond 75 feet drops off at a rate of 5 dBA or more with each doubling of distance from the tracks due to increased distance and building shielding.

(c) Existing Traffic Noise. Traffic noise in the Project Area results from the combination of local and distant traffic. With the exception of Bayshore Boulevard, most roadways within the Project Area have relatively low traffic speeds and moderate-to-low traffic volumes. The combination of local and distant vehicular traffic and Caltrain/UPRR traffic creates a Project Area noise environment that generally exceeds 60 dBA L_{dn} . The primary source of traffic noise in the Project Area is Bayshore Boulevard. A typical sidewalk setback from Bayshore Boulevard (about 55 feet from the centerline) experiences a noise level of about 78 dBA L_{dn} . Noise levels at sidewalk setbacks along other roadways (e.g., Tunnel Avenue, Leland Avenue) are about 60 to 65 dBA L_{dn} .

(d) Miscellaneous Noise Sources. Noise in urban environments is typically characterized by a variety of noise sources, including persistent, transient noise events. Vehicular traffic tends to dominate urban noise environments over a 24-hour period. Typical examples of *transient* noise events include car horns, car alarms, loud vehicles or motorcycles, emergency sirens, loud music, mechanical equipment, trucks, and people talking or yelling. Many of these transient sources are common in the Project Area. Although some of these transient sources may be annoying, they are not persistent and do not contribute substantially to the overall ambient noise level in any particular portion of the Project Area.

As described in chapter 8 (Transportation and Circulation) of this EIR, the Muni T line runs approximately every 8 to 10 minutes from 7:00 AM to 7:00 PM along Bayshore Boulevard. Noise analyses completed for the Third Street Light Rail Project EIS/EIR indicate that light rail trains would produce noise levels ranging from 58 to 60 dBA L_{dn} for a receptor located approximately 10 to 15 feet from the tracks.¹ Consequently, compared to the existing noise environment along Bayshore Boulevard in the Project Area, noise from the Muni T line is not an appreciable factor in local ambient noise levels.

Parking lots adjacent to residential areas can be sources of transient noise from car starts and movements and from people talking. Typical instantaneous maximum noise levels associated with normal parking lot activities are about 60 to 65 dBA at 50 feet from the source. Car alarms, horns, or loud vehicles can produce noise levels of up to 90 dBA at 50 feet.

13.2 REGULATORY FRAMEWORK

13.2.1 San Francisco General Plan

The City of San Francisco addresses issues of land use compatibility, transportation noise, and community noise in the *Environmental Protection Element/Transportation Noise* section of the San Francisco General Plan. The goals and policies in the *Transportation Noise* section are intended to achieve an environment in which noise levels will not interfere with the health and welfare of people in their everyday activities. A Land Use Compatibility Chart for Community Noise is presented in the *Environmental Protection Element/Transportation Noise* section to identify acceptable and unacceptable noise level ranges for specific land use types; the chart is summarized as follows:

- *Residential land uses are considered satisfactory in noise environments of less than 60 dBA L_{dn} .*
- *Noise environments between 60 dBA and 70 dBA L_{dn} are considered conditionally acceptable for residential development. Under these conditions, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the project's design.*
- *Commercial land uses such as retail, movie theaters, and restaurants are considered satisfactory in noise environments of less than 70 dBA L_{dn} .*
- *Noise environments between 67 dBA and 80 dBA L_{dn} are considered conditionally acceptable for commercial development. Under these conditions, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the project's design.*

The *Environmental Protection Element/Transportation Noise* section also contains the following policies relevant to noise in the Project Area:

¹City and County of San Francisco, Planning Department. Third Street Light Rail Project Final EIS/EIR. Planning Department File No. 96.281E, State Clearinghouse No. 96102097, November 1998, Sections 5.13.1 and 5.13.3.

- *Promote site planning, building orientation and design, and interior layout that will lessen noise intrusion. (Policy 10.1)*
- *Promote the incorporation of noise insulation materials in new construction. (Policy 10.2)*
- *Construct physical barriers to reduce noise transmission from heavy traffic carriers. (Policy 10.3)*
- *Discourage new uses in areas in which the noise level exceeds the noise compatibility guidelines for that use. (Policy 11.1)*
- *Consider the relocation to more appropriate areas of those land uses which need more quiet and cannot be effectively insulated from noise in their present location, as well as those land uses which are noisy and are presently in noise-sensitive areas. (Policy 11.2)*
- *Locate new noise-generating development so that the noise impact is reduced. (Policy 11.3)*

13.2.2 San Francisco Municipal Code

Article 29 (Regulation of Noise) of the San Francisco Municipal Code sets allowable construction and fixed-source noise limits for different types of receiving land uses. The following noise limits would be applicable to development facilitated by the proposed redevelopment program:

- *It shall be unlawful for any person ... to operate any powered construction equipment, regardless of age or date of acquisition, if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance. (Section 2907.b. This section would not be applicable to impact tools and equipment).*
- *Impact tools and equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof and approved by the Director of Public Works as best accomplishing maximum noise attenuation, and pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof and approved by the Director of Public Works as best accomplishing maximum noise attenuation. (Section 2907.c)*
- *It shall be unlawful for any person, between the hours of 8:00 PM of any day and 7:00 AM of the following day, to erect, construct, demolish, excavate for, alter or repair any building or structure if the noise level created thereby is in excess of the ambient noise level by 5 dBA at the nearest property line, unless a special permit therefore has been applied for and granted by the Director of Public Works. (Section 2908)*
- *It shall be unlawful for any person to operate any fixed machinery or equipment, or similar mechanical device, in any manner so as to create any noise which would cause the noise level measured at the property line of the property affected by noise emission. Noise limits shall not exceed the following [see Table 13.4 below] unless said person has filed an Application for Variance in accordance with the provisions of this Article. If the measurement location is on a boundary between two Zoning Districts, the lower sound level shall apply.*

Table 13.4
FIXED-SOURCE NOISE LEVEL LIMITS--SAN FRANCISCO MUNICIPAL CODE

<u>Zoning District</u>	<u>Time Period</u>	<u>Maximum Allowable Sound Level (dBA) at Property Line</u>
R-1-D, R-1, R-2	10 PM-7 AM	50
	7 AM-10 PM	55
R-3, R-3.5, R-4, R-5, R-3-C, R-3.5-C, R-4-C, R-5-C	10 PM-7 AM	55
	7 AM-10 PM	60
C-1, C-2, C-3-O, C-3-R, C-3-G	10 PM-7 AM	60
	7 AM-10 PM	70
M-1	Anytime	70
M-2	Anytime	75

The following provision of Article 29 permits the City to regulate unnecessary, excessive, or offensive noise that would be annoying to most people:

- *A noise level which exceeds the ambient noise level by 5 dBA or more, when measured at the nearest property line...shall be deemed a prima facie violation of this Article. (Section 2901.11)*

13.2.3 State of California Building Code and Guidelines

Environmental noise intrusion into new multi-family housing is regulated by Chapter 12, Section 1208 (Sound Transmission Control) of the California Building Code. The Code stipulates that interior noise levels attributable to exterior sources shall not exceed 45 L_{dn} in any habitable room. The Code further stipulates that residential structures proposed where the outdoor noise level exceeds 60 L_{dn} shall require an acoustical analysis showing that the proposed design will limit the interior noise level to a maximum of 45 L_{dn} .

13.2.4 Federal Transit Administration Groundborne Vibration Impact Criteria

Groundborne vibration impacts are typically associated with fast-moving railroad operations and large industrial equipment. The Federal Transit Administration (FTA) of the U.S. Department of Transportation has developed impact assessment criteria for evaluating vibration impacts associated with rapid transit projects. These criteria for groundborne vibration impacts on occupants inside buildings are shown in Table 13.5, and are based on average vibration levels calculated over a one-second period to relate to average, maximum vibration levels experienced by humans. Note that there are criteria for frequent events (more than 70 events per day) and infrequent events (less than 70 events per day).

Table 13.5
GROUNDBORNE VIBRATION IMPACT ASSESSMENT CRITERIA

Land Use Category	(VdB re 1 μ inch/sec, root mean square)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where low ambient is essential for interior operations	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

Source: U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration limits. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

The FTA criteria are based primarily on experience with passenger train operations, such as rapid transit and commuter rail systems. It should also be noted that the FTA criteria limits contained in Table 13.5 are not appropriate for evaluating the potential for building structural or cosmetic damage due to train operations. It is extremely rare that train operations can cause any such damage except in the case of weakened structures or dilapidated buildings. Even in such cases, structural damage is unlikely unless the buildings are located extremely close to the tracks.

13.3 IMPACTS AND MITIGATION MEASURES

13.3.1 Significance Criteria

Based on the current CEQA Guidelines, the Project (redevelopment program) would create a significant impact on the noise environment if it would result in:¹

- (1) Exposure of persons to, or generation of, noise levels in excess of standards established in the San Francisco General Plan or Municipal Code, or applicable standards of other agencies;

¹CEQA Guidelines, Appendix G, item XI(a - d).

- (2) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels;
- (3) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project; or
- (4) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

A significant impact would be identified if land uses facilitated by the Project would be exposed to ambient noise levels exceeding the City's established guidelines for noise and land use compatibility (see subsection 13.2.1 above). A significant noise impact would also result if ambient noise levels increase substantially at existing noise-sensitive land uses (e.g., residences) due to the Project-facilitated land use changes or associated traffic increases. As discussed above in subsection 13.2.2, Article 29 of the San Francisco Municipal Code sets a threshold of 5 dBA for a noise level increase to be considered a violation of the Code. This noise level increase criterion would be applicable to development facilitated by the proposed redevelopment program, and any exceedance would constitute a significant impact.

Noise levels from hazardous conditions remediation (see EIR chapter 11, Hazards and Hazardous Materials) and Project construction would be treated differently because they would be temporary and intermittent. Significant noise impacts would result from remediation and construction if related noise levels were sufficiently high to interfere with speech, sleep, or normal residential activities. Any exceedance of the construction and fixed-source noise limits identified in Article 29 of the San Francisco Municipal Code (see subsection 13.2.2 above) would be considered a significant impact.

13.3.2 Impacts and Mitigation Measures

Impact 13-1: Project-Facilitated Remediation-, Demolition-, and Construction-Period Noise. Remediation, demolition, and construction activities facilitated by the Project (redevelopment program) could temporarily elevate noise levels at nearby residential and commercial receptors during individual, site-specific project remediation and construction periods. Noise levels at 50 feet from the remediation, demolition, or construction equipment source could reach approximately 105 dBA, resulting in intermittent interference with typical existing residential and business activities, and exceeding the allowable construction and fixed-source noise limits established in the San Francisco Municipal Code (Article 29). This possibility represents a ***potentially significant intermittent and short-term noise impact*** (see criteria 1 and 4 and explanatory text in subsection 13.3.1, "Significance Criteria," above).

Hazardous conditions remediation and Project construction activities would generate considerable amounts of noise, especially during the building demolition, grading and scraping, and infrastructure construction phases when heavy equipment is used. The noise effects of these activities would depend on the noise characteristics of selected pieces of equipment, the timing and duration of these noise generating activities, and the distance between these noise sources and the nearest noise-sensitive receptors. Noise levels during

construction would occur in phases, including demolition of existing structures in the Project Area (e.g., Schlage Lock buildings), grading and excavation, construction of foundations, erection of the new structures, and finishing.

Tables 13.6 and 13.7 depict typical noise levels generated by construction equipment at a distance of 50 feet from the source and at a distance of 50 feet from the construction activity center, respectively. The highest maximum noise levels generated by project construction activities would typically range from approximately 90-to-105 dBA at a distance of 50 feet from the noise source. These noise levels would result primarily from pile drivers, jack hammers, and other percussive pieces of equipment. Remediation activities are not expected to generate noise levels higher than those generated by construction equipment.

Typical hourly average construction-generated noise levels would be approximately 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by intervening buildings or terrain typically results in much lower construction noise levels at distant receptors.

Remediation and construction noise impacts result primarily when remediation and construction activities occur during the noise-sensitive times of the day (i.e., early morning, evening, or nighttime hours), the activities occur in areas immediately adjoining noise-sensitive land uses, or when remediation and construction durations last over extended periods of time. Limiting remediation and construction to daytime hours is often the most simple and effective method of reducing the potential for noise impacts. In areas immediately adjacent to remediation and construction, controls such as constructing temporary noise barriers and utilizing "quiet" equipment can also reduce the potential for noise impacts.

In Redevelopment Zone 1, hazardous conditions remediation would be completed before any building construction (see EIR chapter 11, Hazards and Hazardous Materials). Subsequent Project-facilitated construction would occur in phases over an approximately 15-to-20 year period. Remediation and construction activities during these periods could expose existing nearby noise-sensitive land uses, and future noise-sensitive land uses built during the earlier phases of Project-facilitated development, to noise levels substantially exceeding the ambient noise environment and the construction and fixed-source noise limits established by the San Francisco Municipal Code (Article 29) (see EIR subsection 13.2.2 above). This Project-related effect represents a *potentially significant noise impact*.

Table 13.6
CONSTRUCTION EQUIPMENT NOISE LEVEL RANGES

	A-weighted Noise Level (dBA) At 50 Feet					
	60	70	80	90	100	110
Earth Moving:						
Compacters (Rollers)						
Front Loaders						
Backhoes						
Bulldozers						
Scrapers, Graders						
Pavers						
Trucks						
Materials Handling:						
Concrete Mixers						
Concrete Pumps						
Cranes (Movable)						
Cranes (Derricks)						
Stationary:						
Pumps						
Generators						
Compressors						
Impact Equipment:						
Pneumatic Wrenches						
Jackhammers and Rock Drills						
Pile Drivers (Peak)						
Other:						
Vibrator						
Saws						
Source: Handbook of Noise Control, Cyril M. Harris, 1979.						

Table 13.7
TYPICAL NOISE LEVEL RANGES AT 50 FEET, L_{eq} IN dBA, AT CONSTRUCTION SITES

	<u>Domestic Housing</u>		<u>Office Building, Hotel, Hospital, School, Public Works</u>		<u>Industrial, Parking Garage, Religious, Amusement and Recreation, Store, Service Station</u>		<u>Public Works, Roads and Highways, Sewers and Trenches</u>	
	<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

SOURCE: U.S. EPA, Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

I - All pertinent equipment present at site.

II - Minimum required equipment present at site.

Mitigation 13-1. Reduce redevelopment program-related individual project remediation-, demolition-, and construction-period noise impacts on nearby residences and businesses by incorporating conditions in project demolition and construction contract agreements that stipulate the following conventional noise abatement measures:

- *Remediation and Construction Plans.* For major noise-generating remediation and construction activities, prepare detailed remediation and construction plans identifying the schedules. The plans shall identify a procedure for coordination with nearby noise-sensitive facilities so that remediation and construction activities and the event schedule can be scheduled to minimize noise disturbance.
- *Remediation and Construction Scheduling.* Ensure that noise-generating remediation and construction activity is limited to between the hours of 7:00 AM to 8:00 PM, Monday through Friday, and noise levels generated by construction are prohibited on Saturdays, Sundays, and holidays. (San Francisco Municipal Code Section 2908)
- *Remediation and Construction Equipment Noise Limits.* Limit all powered remediation and construction equipment to a noise level of 80 dBA or less when measured at a distance of 100 feet or an equivalent sound level when measured at some other convenient distance. (San Francisco Municipal Code Section 2907)
- *Impact Tools and Equipment.* Equip all impact tools and equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. Equip all pavement breakers and jackhammers with acoustically attenuating shields or shrouds that are in good condition and appropriate for the equipment. (San Francisco Municipal Code Section 2907)
- *Equipment Locations.* Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a remediation or construction site.
- *Remediation and Construction Traffic.* Route all remediation and construction traffic to and from the sites via designated truck routes where possible. Prohibit remediation- and construction-related heavy truck traffic in residential areas where feasible.
- *Quiet Equipment Selection.* Use quiet equipment, particularly air compressors, wherever possible.

(continued)

Mitigation 13-1 (continued):

- *Temporary Barriers.* Construct solid plywood fences around remediation and construction sites adjacent to residences, operational businesses, or noise-sensitive land uses.
- *Temporary Noise Blankets.* Temporary noise control blanket barriers should be erected, if necessary, along building facades of construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. (Noise control blanket barriers can be rented and quickly erected.)

Noise Disturbance Coordinator. For Zone 1 remediation and larger individual construction projects, the City may choose to require project designation of a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about remediation or construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the remediation/construction site and include it in the notice sent to neighbors regarding the remediation/construction schedule. (The project sponsor should be responsible for designating a Noise Disturbance Coordinator, posting the phone number, and providing schedule notices. The Noise Disturbance Coordinator would work directly with an assigned City staff member.)

Implementation of these measures would reduce this intermittent, short-term, Project remediation- and construction-period noise impact to a ***less-than-significant level***.

Impact 13-2: Project-Facilitated Groundborne Vibration Levels. The Project (redevelopment program) would not introduce any sources of groundborne vibration. However, the Project would introduce new development along the Caltrain rail line and along the Muni light rail line. Railroad operations would introduce potential groundborne vibration issues if vibration-sensitive development, such as residences, were proposed close to these operations. Both local and through trains were observed to travel relatively slowly along the segment of the Caltrain/UPRR tracks in the Project Area (through trains were estimated at less than 20 mph). Based on vibration levels measured as a part of the EIR noise analysis, groundborne vibration levels are typically less than the FTA criteria for frequent events (72 VdB) at a distance of approximately 110 feet from the centerline of the nearest railroad tracks. With respect to light rail operations of the Muni T line, which incorporates features such as modified suspensions on the trains and vibration-control track systems, the impact threshold distance for the FTA criteria for frequent events would be 55 feet from the light rail tracks.¹ Therefore, where residential buildings are proposed *within* 110 feet or less of the railroad tracks, or *within* 55 feet or less of the light rail tracks, a ***potentially significant intermittent vibration impact*** could occur (see criterion 2 in subsection 13.3.1, "Significance Criteria," above).

Mitigation 13-2. Prior to the development of habitable buildings within 110 feet of the centerline of the nearest railroad tracks, or within 55 feet of the light rail tracks, a site-specific vibration study shall be required demonstrating that groundborne vibrations associated with rail operations either (1) would not exceed the applicable FTA groundborne vibration impact assessment criteria (see Table 13.5 of this EIR), or (2) can be reduced to below the applicable FTA criteria thresholds through building design and construction measures (e.g., stiffened floors). Implementation of this measure would reduce this potential intermittent vibration impact to a ***less-than-significant level***.

¹Third Street Light Rail Project Final EIS/EIR, Section 5.13.3.

Impact 13-3: Potential Exposure of New, Project-Facilitated Noise-Sensitive Development to Ambient Noise Levels Exceeding Standards. The proposed Project (redevelopment program) would facilitate new residential, retail, open space, and cultural development in the Project Area. Associated new residents, employees, and visitors could be exposed to various existing and projected noise sources, including noise from vehicular traffic and Caltrain railroad operations. The compatibility of proposed Project-facilitated land uses with the existing and projected noise environment has been evaluated based on the San Francisco General Plan *Environmental Protection Element/Transportation Noise* section Land Use Compatibility Chart for Community Noise (see EIR subsection 13.2.1). New residential development is considered normally acceptable in noise environments of less than 60 dBA L_{dn} , and new retail, open space, and cultural development is considered normally acceptable in noise environments of less than 70 dBA L_{dn} .

Future noise levels throughout much of the Project Area, especially in the vicinity of the Caltrain line and Bayshore Boulevard, would exceed 60 dBA L_{dn} . Land uses proposed within 75 feet of the Caltrain line and along Bayshore Boulevard would be exposed to noise levels of 70 dBA L_{dn} or higher, thereby exposing new Project-facilitated noise-sensitive residential, retail, open space, and cultural land use development to noise levels exceeding the "normally acceptable" threshold. These possible long-term adverse noise effects would represent a ***potentially significant impact*** (see criterion 1 in subsection 13.3.1, "Significance Criteria," above).

Mitigation 13-3. Site-specific noise studies consistent with the requirements of the State Building Code (SBC) shall be conducted for all new Project-facilitated residential uses within 75 feet of the Caltrain line and along the Bayshore Boulevard frontage to identify appropriate noise reduction measures to be included in project final design. Each noise study must be submitted to and approved by the San Francisco Planning Department and/or the San Francisco Redevelopment Agency prior to City issuance of a residential building permit. Identified noise reduction measures may include:

- Site planning techniques to minimize noise in shared residential outdoor activity areas by locating such noise-sensitive areas behind buildings or in courtyards, or by orienting residential terraces to alleyways rather than streets, whenever possible;
- Incorporation of an air circulation system in all affected units so that windows can remain closed to maintain interior noise levels below 45 dBA L_{dn} ; and
- Incorporation of sound-rated windows and construction methods in residential units proposed along streets or the Caltrain line where noise levels would exceed 70 dB L_{dn} .

Noise levels at multi-family residential property lines around Project-facilitated development should be maintained at an L_{eq} not in excess of 60 dBA during the daytime hours and 50 dBA during nighttime hours (10:00 PM to 7:00 AM), unless ambient noise levels are higher. In those cases, the existing ambient noise level would be the noise level standard.

Implementation of these measures to the satisfaction of the San Francisco Planning Department and/or the San Francisco Redevelopment Agency would reduce potential Project-related noise impacts on new residential uses to a ***less-than-significant level***.

Project-Facilitated Noise Level Increases. The proposed Visitacion Valley redevelopment program would change noise levels by facilitating new development in the Project Area and changing traffic patterns. The proposed Project is expected to introduce commercial uses adjacent to existing or proposed residential land uses. Redevelopment Zone 1 would be developed with retail, restaurant, and grocery uses in close proximity to residences, sometimes in the same building. Existing vacant lots and underutilized properties in Redevelopment Zone 2 along Bayshore Boulevard and Leland Avenue could be developed with new mixed uses, including residential, retail, and restaurants. New commercial development proposed along with, or next to, new residential development could generate noise from mechanical equipment, truck deliveries, outdoor conversations from restaurant customers, and other potential activities that could result in adverse changes to the noise environment. In addition, Project-facilitated new residential and mixed use development could generate noise that may adversely affect existing or proposed noise-sensitive (e.g., residential) uses; an example of related noise sources would be mechanical equipment associated with new multi-family residential structures.

Such fixed-source noise generators would be subject to Article 29 of the San Francisco Municipal Code, as described in EIR subsection 13.2.2 above; also, the City can require a site-specific noise study demonstrating how an individual commercial project would meet the Article 29 standards. Therefore, this impact is considered **less-than-significant** (see criteria 1 and 3 in subsection 13.3.1, "Significance Criteria," above).

The significance of vehicular traffic noise increases in the Project Area was evaluated by comparing noise levels from increased traffic levels as a result of implementing the Project to noise levels in the future under the No Project (no redevelopment program) alternative (see EIR chapter 17). Such traffic noise increments would be of particular concern at "sensitive receptor locations"--e.g., where significantly affected roadways are adjacent to residential, school, hospital, or other noise-sensitive uses. In areas where ambient noise levels are generated primarily by vehicular traffic, traffic volumes would have to double for noise levels to increase by 3 dB. The existing ambient (background) noise level in the Project Area, away from roadways and Caltrain, is estimated at about 62 dBA L_{dn} or higher. An ambient noise level increase of 5 dB or greater would be considered significant in this environment (see explanatory text in subsection 13.3.1, "Significance Criteria," above).

Estimated Project-related traffic noise level increases have been calculated by Illingworth & Rodkin, the EIR noise consultant, based on the estimated changes between existing traffic volumes and the future condition traffic volumes on local roadways as determined for this EIR by DMJM Harris (see EIR chapter 8, Transportation and Circulation). In addition to local traffic noise, distant traffic noise, localized transit, Caltrain/UPRR, and other non-transportation related noise sources dominate existing noise levels in the Project Area; these background noise levels were taken into account by Illingworth & Rodkin when calculating Project-related traffic noise level increases. Along roadways with low existing traffic volumes, ambient background noise levels (such as distant traffic) can substantially contribute to overall noise levels. To provide a conservative analysis, calculated traffic noise levels do not take into account shielding by terrain or structures.

Illingworth & Rodkin has determined that the greatest Project-generated noise increases would occur along Bayshore Boulevard, where traffic noise level increases of 1 to 2 dB above existing levels are predicted as a result of Project-generated traffic increases. Traffic noise increases of 0 to 1 dB are predicted along existing segments of Arleta Avenue, Leland Avenue, Visitacion Avenue, and Sunnydale Avenue. In summary, traffic noise impacts resulting from the addition of Project-related traffic increases to the existing ambient noise environment would be **less-than-significant** (see criterion 3 in subsection 13.3.1, "Significance Criteria," above).

Based on projected cumulative (year 2025) traffic volume increases (see EIR chapter 8, Transportation and Circulation):

- cumulative traffic noise level increases of 3 to 5 dB could occur along Bayshore Boulevard (where residences exist and are proposed) *if planned year 2025 roadway improvements identified in the EIR traffic analysis (chapter 8) are not implemented;*
- cumulative traffic noise increases of approximately 3 dB could occur at existing residential frontages along Leland Avenue *if planned 2025 roadway improvements are not implemented;* and

- cumulative traffic noise level increases of up to 2 dB are predicted at existing residential frontages along Arleta Avenue, Visitacion Avenue, and Sunnydale Avenue *if the planned 2025 roadway improvements are not implemented.*

The Project contribution to cumulative noise increases (0 to 2 dB) would not exceed the 5 dB significance threshold, and therefore, the Project contribution to cumulative noise level increases in the existing ambient noise environment would be ***less-than-significant*** (see criterion 3 in subsection 13.3.1, "Significance Criteria," above).

With implementation of the planned year 2025 roadway improvements identified in the EIR traffic analysis (chapter 8), a traffic noise increase of about 2 dB is predicted along Bayshore Boulevard, Arleta Avenue, Visitacion Avenue, Sunnydale Avenue, and Leland Avenue, with a Project contribution of 0 to 1 dB, representing a ***less-than-significant impact***.

14. PUBLIC SERVICES

This EIR chapter describes existing police protection, fire protection/emergency medical, school, parks/recreation, and library services in the Project Area; identifies any Project-related environmental impacts associated with these services; and recommends mitigation measures for identified potentially significant impacts.

14.1 POLICE PROTECTION

14.1.1 Setting

(a) Existing Police Service in the Project Area. The San Francisco Police Department (SFPD) serves the approximately 795,800 residents of San Francisco¹ and approximately 1.5 million people during the business day.² The SFPD is divided into four separate bureaus: Administration, Airport, Field Operations, and Investigations. The Field Operations Bureau manages the Patrol Division. The Patrol Division is divided into two groups: the Metro Division and the Golden Gate Division, both supported by Field Operations Branch headquarters staff. Between the two, the Metro and Golden Gate Divisions oversee the ten district stations and the Traffic Company. The Metro Division encompasses downtown, while the Golden Gate Division is comprised of district stations encompassing the outer areas and neighborhoods of San Francisco, including, among others, Richmond, Sunset, Outer Mission, Ingleside, Bayview, Hunters Point, and Visitacion Valley.

The Project Area is served by the Ingleside Six Car patrol sector of the Ingleside Police District, whose station is located at 1 John V. Young Lane.³ The Ingleside Police District generally encompasses the area south of Cesar Chavez Street to the county line, plus the area from U.S. 101 west to Faxon Avenue.⁴

(b) Existing Police Response Times in Project Area. SFPD response times vary according to the priority of the call and officer availability. The SFPD's overall average response time to top-priority calls in the Ingleside District is between 6 minutes 28 seconds and 9 minutes 18 seconds. The adjacent Bayview Police District is also available to respond to calls.⁵

¹ Association of Bay Area Governments (ABAG), Projections 2007: Forecasts for the San Francisco Bay Area to the Year 2035, December 2006; also see Table 6.1 in chapter 6 (Population and Housing) of this EIR.

² San Francisco Fire Department website, www.sfgov.org/site/sffd; accessed November 1, 2007.

³ Denis F. O'Leary, Captain, Ingleside Station, San Francisco Police Department; written communication, February 29, 2008.

⁴ San Francisco Police Department website, www.sfgov.org/site/police; accessed November 1, 2007.

⁵ O'Leary.

(c) Existing Police Department Staffing. The Ingleside Police District is comprised of approximately 132,000 residents and is served by 108 officers and a fleet of 32 vehicles,¹ for a ratio of about 0.8 officers per 1,000 residents. The Sector is staffed 24 hours a day, 7 days a week. The Project Area is patrolled at least hourly.²

14.1.2 Regulatory Framework

The adopted San Francisco General Plan *Community Facilities Element* (Police Facilities Section) contains the following objectives and policies relevant to police protection in the Project Area:

- *Distribute, locate, and design police facilities in a manner that will enhance the effective, efficient, and responsive performance of police functions. (Objective 1)*
- *Locate police functions that are best conducted on a centralized basis in a police headquarters building. (Policy 1.1)*
- *Provide the number of district stations that balance service effectiveness with community desires for neighborhood police facilities. (Policy 1.2)*
- *Enhance closer police/community interaction through the decentralization of police services that need not be centralized. (Policy 1.3)*
- *Distribute, locate, and design police support facilities so as to maximize their effectiveness, use, and accessibility for police personnel. (Policy 1.4)*
- *As they require replacement, relocate existing nonconforming facilities consistent with community desires for neighborhood police facilities. (Policy 1.5)*
- *Design facilities to allow for flexibility, future expansion, full operation in the event of a seismic emergency, and security and safety for personnel, while still maintaining an inviting appearance that is in scale with neighborhood development. (Policy 1.6)*
- *Combine police facilities with other public uses whenever multi-use facilities support planning goals, fulfill neighborhood needs, and meet police service needs. (Policy 1.7)*
- *Locate and design facilities in a manner that encourages constructive police/neighborhood interaction. (Objective 2)*
- *Provide expanded police/community relations and police services through outreach programs, primarily utilizing existing facilities. (Policy 2.1)*
- *Establish police district boundaries along natural neighborhood edges, and reinforce neighborhood identity by locating district stations near the centers of their service areas. (Policy 2.2)*

¹O'Leary.

²O'Leary.

- *Design police facilities to maximize opportunities for promoting community/police relations through dual use of facilities. (Policy 2.3)*

14.1.3 Significance Criteria

Based on the CEQA Guidelines, the proposed redevelopment program would create a significant impact related to police protection if its implementation would:¹

- (1) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.

14.1.4 Impacts and Mitigation Measures

Increased Demand for Police Protection. Implementation of the Project (the proposed redevelopment program) would increase demand for SFPD services. The estimated with-Project population growth increment of up to 5,896 new residents in the Project Area would generate additional calls for police assistance and the need for additional police patrols and fleet vehicles, in order to maintain acceptable service ratios or response times; the SFPD has identified an approximate future need for a five percent increase in officers and fleet vehicles (five-to-six officers and one-to-two vehicles) resulting from the proposed Project.² The SFPD also recommends conducting public education efforts to help reduce crime, and to help organize residential and business associations, in the Project Area.³ The SFPD has not identified a need for new or expanded police facilities. As a result, the Project-related increase in demand for police services would not meet criterion 1 in subsection 14.1.3, "Significance Criteria," above--i.e., has not been determined to "result in a significant adverse physical impact associated with the provision of 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 of the public services." Additionally, new development would be subject to impact fees that could be used to construct new facilities, if needed in the future. Any future SFPD facility improvement projects (e.g., a new station), if and when they are specifically proposed, would be subject to their own project-specific environmental review under CEQA.

Mitigation. No significant project environmental impact associated with police protection has been identified; no mitigation is required.

Cumulative Demands for Police Protection. Buildout of the Project Area, in combination with other anticipated cumulative development in the vicinity (see EIR Table 5.1 in chapter 5, Land Use) would cumulatively increase the demand for police services, including additional sworn police officers and requisite training, support staff, and equipment. Growth in the SFPD service area is monitored and addressed through the City's annual operating and capital budget

¹CEQA Guidelines, Appendix G, item XIII(a).

²O'Leary.

³O'Leary.

process. As a result, this cumulative effect currently does not represent a significant "environmental" impact under CEQA. In addition, new development would be subject to impact fees that could be used to construct new facilities, when needed. Such future SFPD facility improvement projects, if and when they are specifically proposed, would be subject to their own project-specific environmental review pursuant to CEQA.

Mitigation. No significant cumulative environmental impact associated with police protection has been identified; no mitigation is required .

14.2 FIRE PROTECTION/EMERGENCY MEDICAL SERVICES (EMS)

14.2.1 Setting

The San Francisco Fire Department (SFFD) serves the approximately 795,800 residents of San Francisco¹ and approximately 1.5 million people during the business day.² The SFFD comprises 42 engine companies, 18 truck companies, 18 medic units (ambulances), two rescue squads, two fireboats, two service squads, one CO₂ unit, one cliff rescue unit, one hazardous materials unit, three wildland firefighting mini-pumpers, two high-pressure hose tenders, three hose tenders, and one utility searchlight unit, with approximately 1,700 firefighting and emergency medical field personnel. Engines are staffed with one officer and three firefighters, and trucks are staffed with one officer and four firefighters. The companies are grouped into of three divisions, which are further divided into ten battalions. Fire stations are strategically and geographically located throughout the City. In addition, a separate division of the department with three firefighting companies is located at San Francisco International Airport.³

The Project Area is served by Division Three of the SFFD through Fire Stations 43 (720 Moscow Street) and 44 (1298 Girard Street). Station 43 is paramedic (ALS) capable and houses one triple combination pumper engine and a Paramedic Captain, who is a clinical supervisor. Station 44 also is ALS capable and houses one triple-combination pumper engine. Each engine is staffed by one officer and three firefighters, one of whom is designated the emergency medical technician (EMT) or paramedic (depending on license level). In the Project Area, ambulances cover in a "dynamic-deployment" mode, meaning that they are posted on street corners, not housed in the fire stations. The average SFFD response time in the Project Area ranges from 7 minutes 14 seconds to 9 minutes 7 seconds.⁴

¹ABAG Projections 2007; also see Table 6.1 in chapter 6 (Population and Housing) of this EIR.

²SFFD website, accessed November 1, 2007.

³San Francisco Redevelopment Agency and San Francisco Planning Department. Bayview Hunters Point Redevelopment Projects and Rezoning Draft Environmental Impact Report. October 19, 2004; p. III.O-3.

⁴Andy Zanoloff, Captain, Administrative Division, San Francisco Fire Department; written communication, March 3, 2008.

14.2.2 Regulatory Framework

The San Francisco General Plan *Community Facilities Element* (Fire Facilities Section) contains the following objective relevant to fire protection in the Project Area:

- *Development of a system of firehouses which will meet the operating requirements of the Fire Department in providing fire protection services and which will be in harmony with related public service facilities and with all other features and facilities of land development and transportation provided for in other sections of the General Plan. (Objective 5)*

14.2.3 Significance Criteria

Based on the CEQA Guidelines, the redevelopment program would create a significant impact on fire protection and EMS if its implementation would:¹

- (1) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection or EMS.

14.2.4 Impacts and Mitigation Measures

Increased Demand for Fire Protection and EMS. Implementation of the redevelopment program would increase demand for SFFD services, especially since the currently vacant former Schlage Lock property would be replaced primarily with residences, which require 24-hour attention.² All new development would be subject to SFFD requirements for fire hydrant locations, fire sprinkler systems, fire alarm systems, fire flow, and equipment and firefighter access (e.g., street/sidewalk widths, road access, turnaround dimensions, property access). The estimated with-Project population increment of up to 5,896 new residents in the Project Area would generate additional calls for fire protection and EMS. The increased demand may require additional SFFD personnel, training, or equipment in order to maintain acceptable service ratios and response times; however, the SFFD has not identified any associated specific facilities expansion needs in terms of size, staffing, equipment, and location. Project Area development and associated revenues would constitute a contributory effect on the city as a whole, as future revenues could be used to help maintain firehouses in the area if deemed necessary by the City. As a result, the Project-related increase in demand for SFFD services would not meet criterion 1 in subsection 14.2.3, "Significance Criteria," above--i.e., has not been determined to "result in a significant adverse physical impact associated with the provision of 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 of the public services." In addition, new development would be subject to impact fees that could be used to construct new facilities, if needed in the future. Such future SFFD facility improvement projects, if and when they are specifically proposed, would be subject to their own project-specific environmental review under CEQA.

Mitigation. No significant project environmental impact related to fire protection or EMS has been identified; no mitigation is required.

¹CEQA Guidelines, Appendix G, item XIII(a).

²Zanoff.

Cumulative Demands for Fire Protection and EMS. Buildout in the Project Area, in combination with other anticipated cumulative development in the vicinity (see EIR Table 5.1 and Figure 5.1 in chapter 5, Land Use) would cumulatively increase the demand for fire protection/EMS, including additional firefighters and requisite training, support staff, and equipment. As described above, Project Area development and associated revenues would constitute a contributory effect on the city as a whole, as future revenues could be used to help maintain firehouses in the area if deemed necessary by the City. As a result, this cumulative effect does not represent a significant "environmental" impact under CEQA. In addition, new development would be subject to impact fees that could be used to construct new facilities, if needed. Such future SFFD improvement facility projects, if and when they are specifically proposed, would be subject to their own project-specific environmental review pursuant to CEQA.

Mitigation. No significant cumulative environmental impact associated with fire protection or EMS has been identified; no mitigation is required .

14.3 SCHOOLS

14.3.1 Setting

(a) Existing Schools Serving the Project Area. The San Francisco Unified School District (SFUSD) oversees the public school system in San Francisco (K-12), which is comprised of 37 preschool sites plus 104 schools serving various grade levels (e.g., K-5, K-8, 9-12). SFUSD has a total enrollment of approximately 55,500 students.¹

SFUSD is comprised of seven high school attendance areas. At one time, students who resided within each area attended the schools within that boundary. Currently, the District's student assignment process provides all students with equitable opportunities to attend a school of their choice. The process aims to achieve integrated schools, parental choice, access to specialized needs, and enrollment in a school close to home.²

Geographically, the Project Area is located in the Philip and Sala Burton High School Attendance Area. There are 17 SFUSD schools and three charter schools located in this Attendance Area. Schools located in the immediate vicinity of the Project Area are:

- Visitacion Valley Elementary School (55 Schwerin Street), which has a current (June 2007) enrollment of 386 students and the capacity to serve 550 students;
- El Dorado Elementary School (70 Delta Street), which has a current enrollment of 277 students and the capacity to serve 425 students;

¹San Francisco Unified School District (SFUSD) website, www.sfusd.edu ("SFUSD at a Glance"); accessed November 2, 2007.

²Paul Cardoni, District Representative, State Projects, SFUSD; written communication, June 14, 2007.

- Visitacion Valley Middle School (450 Raymond Avenue), which has a current enrollment of 356 students and the capacity to serve 864 students; and
- Philip and Sala Burton High School/Leadership Charter High School (400 Mansall Street), which has a current enrollment of 1,669 students and the capacity to serve 2,187 students.¹

(b) Adopted School Impact Fees. SFUSD began collecting state-authorized school impact fees in 1987, which are collected to mitigate impacts that generate pupil growth (e.g., new housing). The following are the current fees charged by the SFUSD for new construction, by facility type, when building permits are issued:

Residential:	\$2.24 per square foot (sq. ft.),
Office:	\$0.27 per sq. ft.,
Research and Development:	\$0.24 per sq. ft.,
Hospitals:	\$0.22 per sq. ft.,
Industrial/Warehouse/Manufacturing:	\$0.21 per sq. ft.,
Retail and Services/Self Storage:	\$0.18 per sq. ft., and
Lodging/Hotel/Motel:	\$0.09 per sq. ft.

14.3.2 Regulatory Framework

The adopted San Francisco General Plan *Community Facilities Element* (Educational Facilities Section) contains the following objective and policy relevant to schools in the Project Area:

- *Assure that public school facilities are distributed and located in a manner that will enhance their efficient and effective use. (Objective 8)*
- *Provide public school facilities for education in accordance with the need for such facilities as defined by the Unified School District and Community College District. Locate such facilities according to the Public School Facilities Plan and, wherever possible, make available for community use. (Policy 8.1)*

14.3.3 Significance Criteria

Based on the CEQA Guidelines, the proposed redevelopment program would create a significant impact on school services if its implementation would:²

- Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, or the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives of the school districts.

¹Cardoni.

²CEQA Guidelines, Appendix G, item XIII(a).

14.3.4 Impacts and Mitigation Measures

Impacts on School Services. Implementation of the redevelopment program would increase demand for SFUSD services. The District's method for calculating enrollment projections utilizes the Cohort Survival Projection Method for each of the seven high school attendance areas in San Francisco. The method looks at existing school capacity and historical enrollment at each school to project a net increase or decrease in enrollment. SFUSD supplements this projection by the number of un-housed students (i.e., not already living in the area) that are anticipated as a result of dwelling units proposed to be built in the given attendance area. A student yield factor of 0.7 is allowed for each proposed residential unit. The estimated with-Project growth increment of up to 1,585 new housing units in the Project Area (see Table 6.4 in chapter 6, Population and Housing, of this EIR) could contribute as many as 1,120 new students to the Burton Attendance Area.¹

With declining enrollment throughout the District, SFUSD has been closing schools. The District's capital facilities program has focused on replacing older schools with new facilities and modernizing other facilities. Also, SFUSD provides bus transportation to students who attend schools outside of the attendance area in which they reside.²

The courts have held that increased classroom enrollment resulting in school overcrowding is considered a "social" rather than a physical "environmental" impact and is not, in itself, a significant environmental impact requiring mitigation under CEQA (Goleta Union School District vs. Regents of University of California [2d Dist. 1995]). Instead, increased school enrollment may only lead to such an impact if the increase will ultimately require physical changes in the environment. Also, state government code sections established in 1998 (sections 65995 and 65996) have pre-empted and limited the ability of cities to exercise their police power to mitigate school impacts. A city government may not impose development requirements regarding school facilities in a manner inconsistent with state statutes on the subject. The duty of a lead agency to mitigate school impacts beyond the state-mandated fees arises only where there is a physical environmental impact involved beyond the mere addition of students to a school. Without definitive, detailed information on any specific future SFUSD facility expansion plans *resulting from the proposed redevelopment program*, identification of such secondary physical environmental impacts at this time would be highly speculative.

Based on current school capacities, current and projected enrollments, historical and ongoing enrollment trends, the District's collection of school impact fees, and the District's capital facilities program, recent case law, and CEQA provisions discouraging speculation, the proposed redevelopment program would have a ***less-than-significant impact*** on school services.

Mitigation--School Impact Fees. The permitted method for addressing school enrollment increase impacts is limited to the state-authorized statutory authority of school districts to impose school impact fees. Specifically, Government Code section 65996 limits methods of addressing impacts on school facilities to state-authorized development impact fees and interim school facility provisions. Therefore, under current statutes and case law, payment of the required school impact fees would address the Project's impact on school services to the furthest extent permitted by law.

¹Cardoni.

²Cardoni.

School impact fees are collected when building permits are issued. The state-mandated school fee maximums may permit increases in SFUSD impact fees noted above prior to issuance of building permits for development in the Project Area.

Cumulative Impacts on School Services. In addition to the housing that would be facilitated by the redevelopment program, other anticipated residential projects in the vicinity would provide additional residential units (see EIR Table 5.1 and Figure 5.1 in chapter 5, Land Use). Without definitive, detailed information on specific future SFUSD facility expansion plans, identification of secondary physical environmental impacts (i.e., the need for new school facilities) at this time would be highly speculative. Therefore, under CEQA, cumulative impacts on school services would be *less-than-significant*.

Mitigation--School Impact Fees. School impact fees collected from cumulative residential development would be available to construct additional school facilities pursuant to the District's capital facilities program. Payment of the required school impact fees would address the cumulative impact on school services to the furthest extent permitted by law. State law prohibits a local agency from requiring measures beyond designated impact fees to offset a project's impact on local school facilities.

14.4 PARKS AND RECREATION

14.4.1 Setting

Parks and recreational services in San Francisco are provided by the City and County of San Francisco Recreation and Park Department, which maintains approximately 347 acres of parks and recreational facilities (including the 333-acre John McLaren Park) in the Project vicinity. The Project Area itself includes Hans Schiller Plaza, which is the southernmost portion of the Visitacion Valley Greenway that currently extends northwest from Leland Avenue toward McLaren Park. Parks and recreational facilities in the Project vicinity are further described below and mapped on Figure 14.1.¹

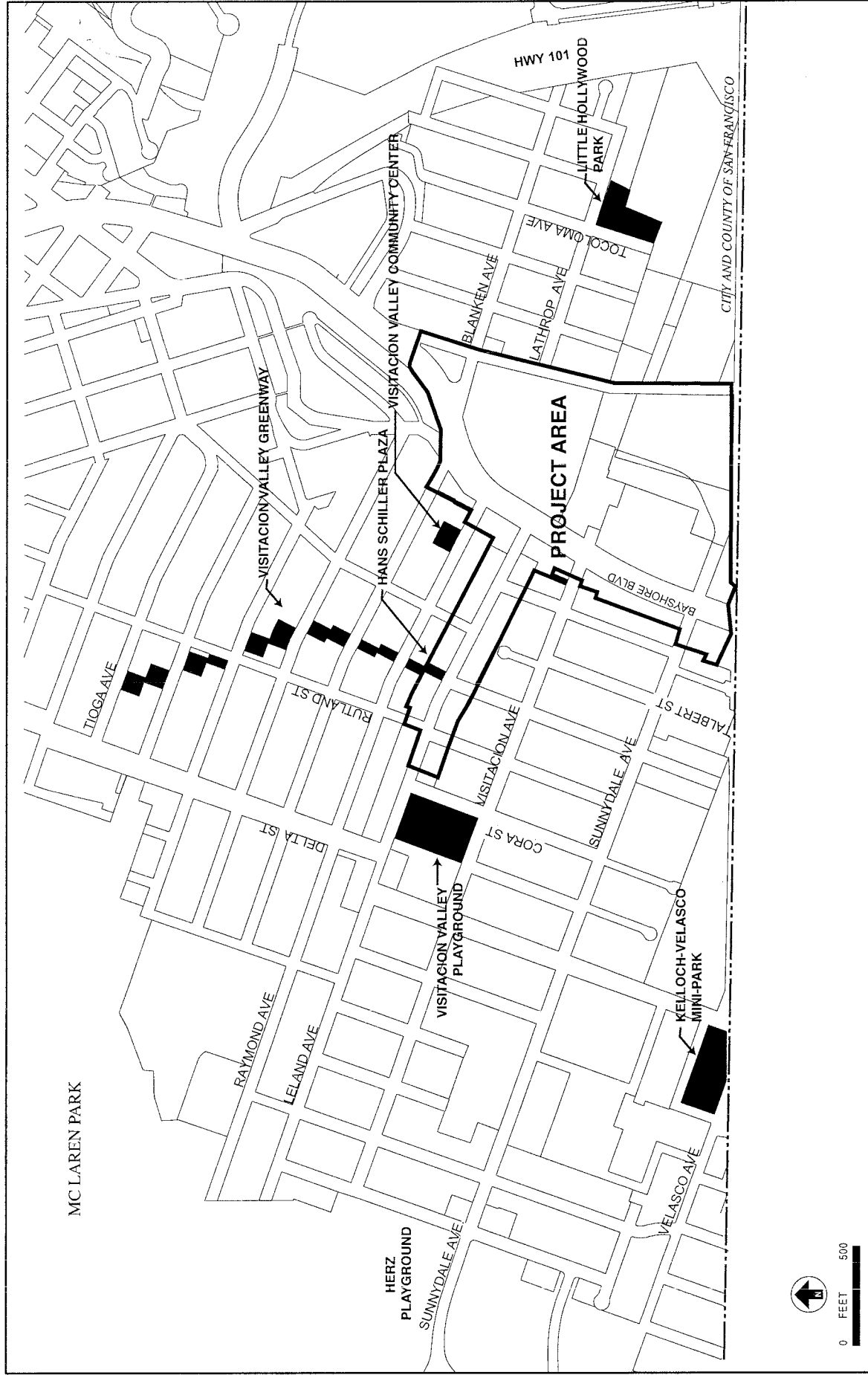
(a) Existing Parks and Recreational Facilities Serving the Project Area. All City parks and recreational facilities are free to the general public. The following facility is located in the Project Area:

- *Hans Schiller Plaza* (0.11 acre), on Leland Avenue, which is part of the Visitacion Valley Greenway and includes landscaping, seating, and a restroom.

The following parks and recreational facilities are located within ¼-mile of the Project Area:

- *Visitacion Valley Greenway* (2.02 acres) which currently extends northwest from Leland Avenue toward McLaren Park and includes a children's play area and a community garden;

¹Dawn Kamalanathan, Planning Director, City and County of San Francisco Recreation and Park Department, written communication, September 28, 2007; and Michelle Reyes, Planning Division, Recreation and Park Department, personal communication, December 14, 2007.



SOURCE: City and County of San Francisco Recreation and Park Department

Figure 14.1

EXISTING PARKS AND RECREATIONAL FACILITIES IN PROJECT VICINITY

- *Visitacion Valley Community Center* (0.28 acre), on Raymond Avenue, which is the neighborhood recreation center;
- *Visitacion Valley Playground* (2.05 acres), between Leland and Visitacion Avenues, which contains a ball field, children's play area, and clubhouse; and
- *Little Hollywood Park* (1.32 acres), on Lathrop Avenue, which includes a basketball court, children's play area, lawn area, and picnic area.

The following are located beyond ¼-mile of the Project Area but are still considered easily accessible (e.g., direct street connections, not interrupted by freeways or physical barriers):

- *Kelloch-Velasco Mini-Park* (1.73 acres), at Kelloch and Velasco Avenues, which contains a basketball court, children's play area, and lawn area;
- *Herz Playground* (6.47 acres), on Hahn Street, which includes a ball field, basketball court, children's play area, clubhouse, picnic area, swimming pool, and tennis courts;
- *John McLaren Park* (333.20 acres), accessible via Visitacion Avenue, which contains a basketball court, bathroom, children's play area, clubhouse, community garden, dog play area, golf course, natural area, picnic area, and tennis court.

(b) Demand for Parks and Recreational Facilities. The General Plan *Recreation and Open Space Element* categorizes open space according to the continuous size of the space as follows: (1) "citywide-serving" = over 30 acres; "district-serving" = 10 to 30 acres; (3) "neighborhood-serving" = 1 to 10 acres; and (4) "sub-neighborhood serving" = less than one acre.

Seifel Consulting Inc., the redevelopment consultant to the San Francisco Redevelopment Agency for the Visitacion Valley redevelopment program, performed a needs assessment for the Eastern Neighborhoods, which include Visitacion Valley and nearby San Francisco neighborhoods. Seifel's analysis determined that there is a 4:1 ratio of citywide to district/neighborhood/sub-neighborhood open space and parks. The analysis further determined that there is not a shortage of citywide open space; however, to maintain existing levels of service of district/neighborhood/sub-neighborhood open space, a total of 1.0 acre of open space would be necessary for every 1,000 residents within a service area (approximately a one-quarter mile radius around a park, or about a 5-10 minute walk).¹

14.4.2 Regulatory Framework

(a) San Francisco General Plan. The adopted San Francisco General Plan *Recreation and Open Space Element* contains the following objectives and policies relevant to parks and recreation in the Project Area:

- *Develop and maintain a diversified and balanced citywide system of high-quality open space.* (Objective 2)

¹Kamalanathan.

- *Provide opportunities for recreation and the enjoyment of open space in every San Francisco neighborhood. (Objective 4)*
- *Renovate and renew the City's parks and recreation facilities. (Policy 4.3)*
- *Acquire and develop new public open space in existing residential neighborhoods, giving priority to areas which are most deficient in open space. (Policy 4.4)*
- *Assure the provision of adequate public open space to serve new residential development. (Policy 4.6)*
- *Provide open space to serve neighborhood commercial districts. (Policy 4.7)*

(b) Visitacion Valley Community Facilities and Infrastructure Fee and Fund. Planning Code sections 319 through 319.7 describe the Visitacion Valley Community Facilities and Infrastructure Fee and Fund. Currently, the fee applies to proposed residential development in Redevelopment Zone 1 (in the Project Area) and at Executive Park (not in the Project Area; see Table 5.1 in chapter 5, Land Use), and is intended to mitigate impacts from new residential development on public infrastructure in Visitacion Valley, including libraries, streets, playgrounds, recreational facilities, and community centers. The Ordinance states, "Substantial new investments in community infrastructure, including active recreational spaces, community facilities, and other public services are necessary to mitigate the impacts of new development at these sites....The fee would be solely used to fund acquisition, design, and construction of community facilities in the Visitacion Valley neighborhood. The proposed fees only cover impacts caused by new development and are not intended to remedy already existing deficiencies...."

The fee has been set at \$4.58 per square foot of new residential development. The with-Project residential growth increment in Redevelopment Zone 1 is estimated at up to 1,250 multi-family units (see Table 6.2 in chapter 6, Population and Housing, of this EIR), with an anticipated overall average size (floor area) of approximately 1,000 square feet per unit; therefore, the total Community Facilities and Infrastructure Fee associated with the Project-facilitated growth increment would be up to approximately \$5,725,000 ($\$4.58 \times 1,250 \times 1,000$).

14.4.3 Significance Criteria

Based on the CEQA Guidelines, the proposed redevelopment program would create a significant impact on parks and recreational services if its implementation would:¹

- (1) Result in substantial adverse physical impacts associated with the provision of new or physically altered parks and recreation facilities, or the need for new or physically altered parks and recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks and recreational services;
- (2) Result in an increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

¹CEQA Guidelines, Appendix G, items XIII(a), XIV(a), and XIV(b).

(3) Include recreational facilities, or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

14.4.4 Impacts and Mitigation Measures

Proposed Parks and Recreational Facilities in the Project Area--Construction Impacts.

As illustrated on Figure 14.2, the redevelopment program proposes three new public parks in Redevelopment Zone 1: (1) Blanken Park (approximately 0.5 acre), which would include a community center in the restored and renovated "Old Schlage Lock Office Building"; (2) Leland Park (about 1.0 acre) between Leland and Visitacion Avenues; and (3) the Residential Greenway (about 1.0 acre) between Visitacion and Sunnysdale Avenues. The new public parks in the Project Area would total approximately 2.5 acres; the specific facilities to be included in the parks and community center have yet to be decided.

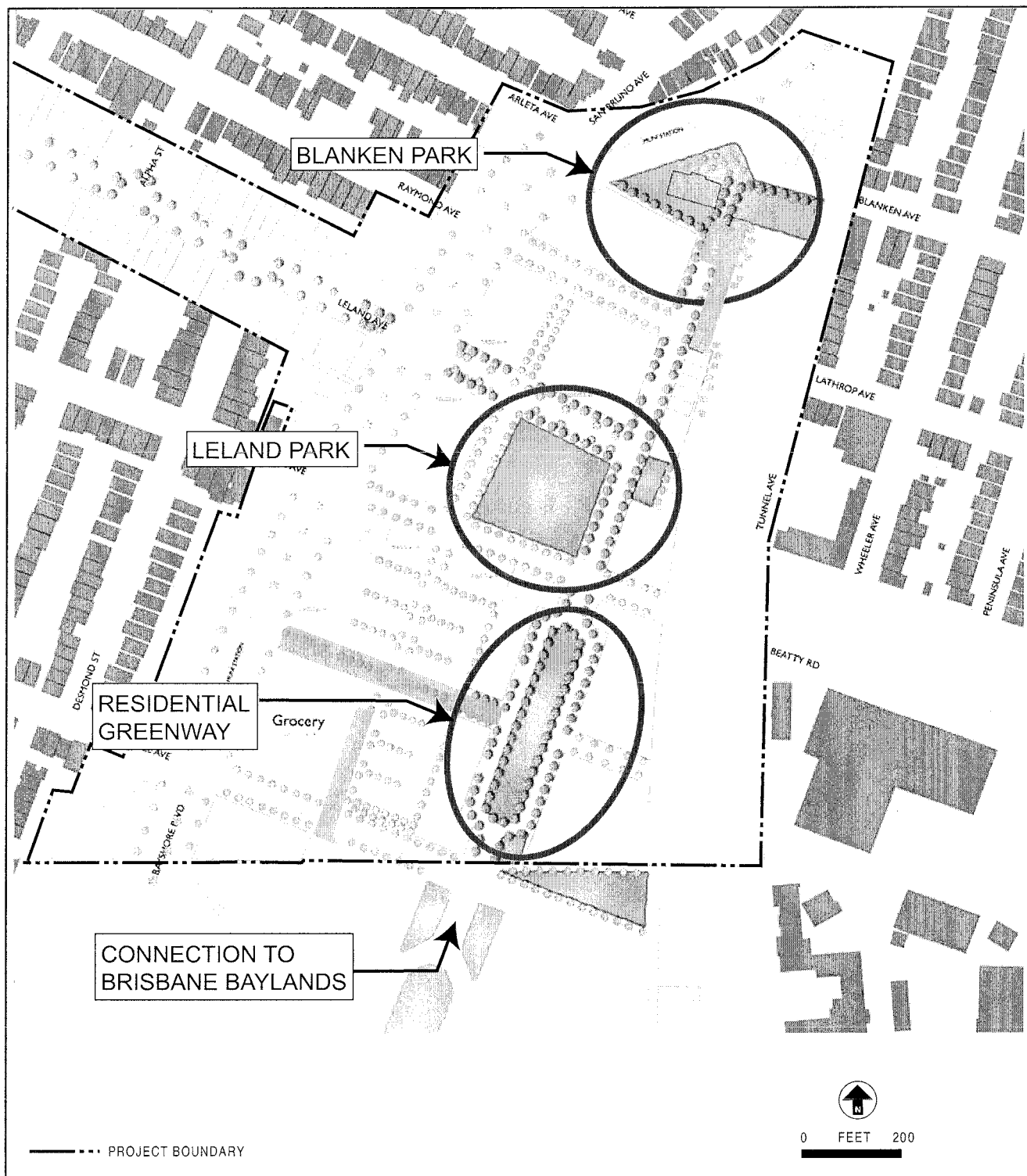
The construction activities to create the redevelopment program-identified new public parks and recreational facilities would be temporary. Construction period traffic interruption, dust, odors, and noise typically associated with such construction would be mitigated through normal City construction period mitigation procedures (e.g., see EIR chapters 9 [Air Quality] and 13 [Noise]). No unusual, significant environmental impact would be anticipated with this construction activity, or with the operation of the new parks and facilities. The environmental impacts associated with construction and operation of proposed new parks and recreational facilities would therefore be **less-than-significant** (see criteria 1 and 3 in subsection 14.4.3, "Significance Criteria," above).

Mitigation. No additional significant environmental impact associated with the construction or operation of proposed new parks and recreational facilities in the Project Area has been identified; no additional mitigation is required beyond those measures already identified in this EIR.

Project Effects on the Adequacy of Existing Parks and Recreational Facilities. The proposed redevelopment program would facilitate a projected Project Area residential growth increment of up to approximately 5,896 new residents in the Visitacion Valley neighborhood. The Project would provide about 2.5 acres of new parks and recreational facilities. Using the recommendation from the Eastern Neighborhoods Assessment by Seifel Consulting, Inc. (1.0 acre per 1,000 residents within a service area), the Recreation and Park Department has calculated that, with the existing availability of open space in the Project vicinity (see Figure 14.1) and *not including the 2.5 acres of new open space proposed by the Project*, the Project would result in a parks/open space deficiency of 0.77 acre.¹ The Recreation and Park Department recognizes that the Project Area is relatively small and, therefore, providing large sections of open space would be impractical. Instead, the Department recommends: (1) greenway spaces that connect to existing open spaces surrounding the Project Area, and (2) coordination between the Redevelopment Agency, Planning Department, and Recreation and Park Department in planning new open space in the Project Area in order to maintain a cohesive open space system.² The Recreation and Park Department has also concluded that the provision of one outdoor tennis court and one outdoor basketball court would provide the

¹Kamalanathan and Reyes.

²Kamalanathan and Reyes.



SOURCE: Van Meter Williams Pollack

Figure 14.2

PROJECT-PROPOSED NEW PARKS

additional recreational facilities needed to maintain the standards determined by the Department's 2004 Recreation Assessment.¹

In addition, proposed development in Zone 1 (see subsection 14.4.2[b] above) would be assessed a Community Facilities and Infrastructure Fee of approximately \$5,725,000 for the acquisition, design, and construction of additional recreational/community facilities in the Visitacion Valley neighborhood. This applicable fee is intended to mitigate the potential effects of increased use of existing parks and recreational facilities which might result from the proposed redevelopment program.

With the proposed addition of 2.5 acres of new public parks and recreational facilities in the Project Area, implementation of the associated Recreation and Park Department recommendations identified above, and payment of the Community Facilities and Infrastructure Fee, the redevelopment program would more than offset the 0.77-acre deficiency identified by the Recreation and Park Department. As a matter of ongoing common practice, the creation of Zone 1-designated new parks and recreational facilities, and the use of the new infrastructure and facilities funds from Zone 1, would be coordinated between the Redevelopment Agency, Planning Department, and Recreation and Park Department. The environmental impacts of the Project related to parks and recreation would therefore be **less-than-significant** (see criteria 1 through 3 in subsection 14.4.3, "Significance Criteria," above).

Mitigation. No significant project environmental impact associated with increased use of existing parks and recreational facilities has been identified; no mitigation is required.

Cumulative Demands for Parks and Recreational Facilities. Development under the proposed redevelopment program, in combination with other anticipated cumulative development in the vicinity (see EIR Table 5.1 in chapter 5, Land Use, of this EIR), would cumulatively increase the demand for parks and recreational facilities. In particular, the Recreation and Park Department's 2004 Recreation Assessment identified a citywide shortage of recreational facilities, including ball fields, soccer fields, and outdoor basketball courts. For any potential future parks and recreational facilities outside the Project Area, until specific parks and facility needs are identified in terms of size, staffing, equipment, and location, assessment of associated environmental impacts would be highly speculative; therefore, such future parks and recreational facility projects would be subject to their own environmental reviews pursuant to CEQA. As a result, this cumulative effect currently does not represent a significant environmental impact under CEQA.

Mitigation. No significant cumulative environmental impact associated with parks and recreational facilities has been identified; no mitigation is required.

14.5 LIBRARY SERVICES

14.5.1 Setting

Residents in the Project Area are served by the Visitacion Valley branch of the San Francisco Public Library. The library is located in a leased storefront at 45 Leland Avenue in the Project

¹Kamalanathan and Reyes.

Area; the current branch is the smallest in the City.¹ In November 2000, San Francisco voters passed Proposition A, the \$105.9 million Branch Library Improvement Program. Combined with other state and local public and private funding sources, this program was designed to renovate 19 branch libraries, replace four leased facilities (including the Visitacion Valley branch) with City-owned branches, and construct a new branch in Mission Bay. On March 1, 2007, the San Francisco Library Commission voted to increase the budget of the Visitacion Valley project from \$5.9 million to \$11.4 million in order to build a branch library larger than was originally planned.²

The new Visitacion Valley Branch Library, currently in the design stage, is scheduled to open in 2010. The library will replace the Super Fair Market at the southwest corner of Leland Avenue and Rutland Street (in the Project Area). Planning for the new approximately 10,000-square-foot library anticipated the future revitalization of the Project Area, including new housing and development of the Concept Plan subarea for housing and retail uses. The current library will remain in operation until the new library opens, except for several days when books and other materials are transferred to the new building.³

The new branch library is designed to include a reading area, two study rooms, distinct children's and teen's areas, increased technology and more computers, paved outdoor courtyards suitable for library programming, twice as many books and other materials (compared to the current facility), a Program Room with after-hours community access, and a LEED Silver Rating for energy conservation. The branch also will provide Family Literacy Training and foreign-language materials.⁴

Construction and operation of the new library was subject to a "Certificate of Determination of Exemption/Exclusion from Environmental Review" per CEQA Guidelines sections 15301(1)(3) and 15303(c), generally pertaining to limited demolition and new construction in urbanized areas.⁵ Therefore, the future library is not subject to CEQA review.

14.5.2 Regulatory Framework

(a) San Francisco General Plan. The adopted San Francisco General Plan *Community Facilities Element* (Library Facilities Section) contains the following objective relevant to library services in the Project Area:

- *Development of a public library system in San Francisco which will make adequate and efficient library service freely available to everyone within the City, and which will be in*

¹City and County of San Francisco Proposition 14 Application: Visitacion Valley Branch Library #3061, 2004. Provided by Mindy Linetzky, Bond Program Administrator, San Francisco Public Library, Branch Library Improvement Program.

²San Francisco Public Library, New Construction--Visitacion Valley Branch, www.sfpl.lib.ca.us/news/blip/visvalleyconstruction.htm, accessed October 31, 2007.

³Proposition 14 Application and branch website.

⁴Proposition 14 Application and branch website.

⁵Certificate of Determination of Exemption/Exclusion from Environmental Review--Visitacion Valley Branch Library, City and County of San Francisco Planning Department, signed by Paul E. Maltzer, Environmental Review Officer, August 28, 2003.

harmony with related public service facilities and with all other features and facilities of land development and transportation provided for in other sections of the General Plan.
(Objective 6)

(b) Visitacion Valley Community Facilities and Infrastructure Fee and Fund. Planning Code sections 319 through 319.7 describe the Visitacion Valley Community Facilities and Infrastructure Fee and Fund. Currently, the fee applies to proposed residential development in Redevelopment Zone 1 (in the Project Area) and at Executive Park (not in the Project Area, see Table 5.1 and Figure 5.1 in chapter 5, Land Use), and is intended to mitigate impacts from new residential development on public infrastructure in Visitacion Valley, including libraries, streets, playgrounds, recreational facilities, and community centers. The Ordinance states, "Substantial new investments in community infrastructure, including active recreational spaces, community facilities, and other public services are necessary to mitigate the impacts of new development at these sites....The fee would be solely used to fund acquisition, design, and construction of community facilities in the Visitacion Valley neighborhood. The proposed fees only cover impacts caused by new development and are not intended to remedy already existing deficiencies...."

The fee has been set at \$4.58 per square foot of new residential development. The estimated Project-facilitated residential growth increment in Redevelopment Zone 1 is up to 1,250 multi-family units (see Table 6.3 in chapter 6, Population and Housing), with an estimated overall floor area average of approximately 1,000 square feet per unit; therefore, the total Community Facilities and Infrastructure Fee from this development increment would be approximately \$5,725,000 ($\$4.58 \times 1,250 \times 1,000$).

14.5.3 Significance Criteria

Based on the CEQA Guidelines, the redevelopment program would create a significant impact on library services if its implementation would:¹

(1) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for library services.

14.5.4 Impacts and Mitigation Measures

Increased Demand for Library Services. Implementation of the redevelopment program would increase demand for library services. The estimated Project-facilitated residential growth increment in the overall Project Area of up to 5,896 new residents would generate additional visits to the local library and additional demand for library resources (e.g., books, seating, computers, literacy training).

As described above in subsection 14.5.1 (Setting), the planning for the recently approved future Visitacion Valley Branch Library, which is scheduled to open in 2010, took into account the future revitalization of the Project Area. Therefore, because the Project-facilitated population growth increment is not expected to result in the need for new or physically altered library facilities, the Project would have a ***less-than-significant impact*** on library services.

¹CEQA Guidelines, Appendix G, item XIII(a).

Mitigation. No significant environmental impact associated with the Project-related increases in the demand for library services has been identified; no mitigation is required.

Cumulative Demands for Library Services. Development under the proposed redevelopment program, in combination with other anticipated cumulative development in the vicinity (see EIR Table 5.1 and Figure 5.1 in chapter 5, Land Use), would cumulatively increase the demand for library services. For any potential future library facilities (not including the approved Visitacion Valley Branch Library), until specific library facility needs are identified in terms of size, staffing, equipment, and location, assessment of associated environmental impacts would be highly speculative; therefore, such future library facility projects would be subject to their own environmental reviews pursuant to CEQA. As a result, this cumulative effect currently does not represent a significant environmental impact under CEQA.

Mitigation. No significant cumulative environmental impact associated with library services has been identified; no mitigation is required.

15. UTILITIES AND SERVICE SYSTEMS

This EIR chapter describes existing water, wastewater, solid waste disposal/recycling, and gas/electricity service conditions in the Project Area; identifies Project-related environmental impacts associated with these services; and recommends mitigation measures for identified potentially significant environmental impacts.

15.1 WATER SERVICE

15.1.1 Setting

(a) Existing Water Supply. Water is provided to retail customers in the Project Area and the entire City and County of San Francisco through a water supply, storage, and distribution system operated by the San Francisco Public Utilities Commission (SFPUC).¹ This local system purchases most of its water (approximately 96 percent) from the San Francisco Regional Water System (RWS), which is also operated by the SFPUC.² The remainder of the water used by the SFPUC (about 4 percent) is obtained from groundwater extractions in the western part of the City (i.e., the Westside groundwater basin, mainly for irrigation purposes in Golden Gate Park and around Lake Merced) and in the Pleasanton area, and from the use of tertiary treated recycled wastewater produced at the City's Westside Water Pollution Control Plant. The SFPUC has projected that the use of recycled wastewater can be expanded from approximately 0.7 million gallons per day (mgd) in 2005 to 5.0 mgd by 2025.³

On average, the RWS obtains about 15 percent of its supply from runoff into several Bay Area reservoirs, and 85 percent from diversions on the Tuolumne River through the Hetch Hetchy Water and Power Project (HHWPP). In drought years, the HHWPP contribution has risen to as high as 93 percent of all water delivered by the RWS.⁴

In addition to providing San Francisco's water, the RWS also supplies on a wholesale basis all or a portion of the water used by a total of 28 entities in Alameda, San Mateo, and Santa Clara Counties. These entities include cities, water districts, improvement districts, water associations, schools, and private water companies. The percentage of each entity's demand provided by the RWS varies, but it averages approximately 65 percent, totaling 177.9 mgd in

¹The SFPUC also provides retail water service to the following areas and entities located outside San Francisco: the Town of Sunol, San Francisco International Airport, Lawrence Livermore Laboratory, and the Castlewood and Groveland Community Services District in Alameda County.

²San Francisco Public Utilities Commission (SFPUC). 2005 Urban Water Management Plan for the City and County of San Francisco. December 2005; Table 5A, p. 9.

³SFPUC, Table 19, p. 94.

⁴SFPUC, p. 10.

2005. Combined with the 88.9 mgd supplied to San Francisco, water deliveries by the RWS averaged 266.8 mgd (approximately 299,000 acre-feet) in 2005.

The SFPUC has estimated that during a "design" 8½-year drought, at current levels of use, the RWS would experience supply shortages of approximately 25 percent, 15 to 20 percent of the time. These shortages and the resulting cut-backs would affect both retail (San Francisco) and wholesale water customers. The SFPUC plans to limit future drought-imposed rationing to no more than 20 percent of demand.¹

The current SFPUC Water System Improvement Program (WSIP) includes several measures for achieving the goal of improving the reliability of the RWS supply, which can be summarized as follows:

- (1) Conjunctive use of the Westside groundwater basin (aquifer). Although this basin has not been determined to be in overdraft by the Department of Water Resources, its water levels have fallen substantially in recent years, most notably affecting conditions in Lake Merced. Most of the groundwater from the basin is used by cities in northern San Mateo County. To replenish water levels, the SFPUC is currently working with the user cities to develop an in-lieu program whereby water that would otherwise be pumped from the ground will be replaced by water from the RWS during non-drought years. It is expected that with this replenishment approach, over the course of several years, the aquifer will gradually recover and ultimately be able to provide as much as 61,800 acre-feet (equal to approximately 7 billion gallons) of recoverable storage during a drought.
- (2) Negotiation of drought-year water transfers from other users of Tuolumne River water, holders of water rights on other river systems, or the State Water Project. Under the terms of a proposed transfer that was not completed, Tuolumne River water would have been diverted for underground storage by a Central Valley water district during "normal" water years, which would then withdraw the water during a drought while releasing some of its normal surface water entitlement for use by the RWS. As of 2005, no transfers had been completed under the proposal, but the SFPUC anticipates that by the year 2020, as much as 29,000 acre-feet per year will be made available in this way during a drought.
- (3) Recovery of storage within Bay Area reservoirs. As part of the WSIP, the storage capacity of the SFPUC's Crystal Springs reservoir will be increased by 11,100 acre-feet, and the capacity of the Calaveras reservoir will be increased by 58,700 acre-feet. None of these supply reliability improvement measures entails an expansion of the RWS's existing water sources. Rather, the measures would provide additional ways to "bank" water during normal years for use during a drought.

Due to the previously described drawdown of the Westside aquifer, and because groundwater resources on the east side of San Francisco tend to be restricted by poor soils and widespread contamination, the SFPUC has no firm plans to increase local groundwater withdrawals; however, the installation of new wells in the vicinity of Golden Gate Park and Lake Merced is being investigated.

(b) Existing Water Distribution, Storage, and Treatment. The Project Area is served by an existing water distribution system that extends throughout the residential areas on either side of Leland Avenue and runs along both sides of Redevelopment Zone 1. Water is delivered to

¹SFPUC, p. 36.

homes and businesses on Bayshore Boulevard and the eastern half of Leland Avenue by 6- or 8-inch diameter lines that are tied into the overall grid system at every corner, and also to a 12-inch main that runs along the east side of Bayshore Boulevard and up Sunnydale Avenue. Redevelopment Zone 1 is served by an existing direct connection to this 12-inch main at Visitacion Avenue.

The 12-inch transmission system continues around the northern end of Zone 1 on to Blanken Avenue and then Tunnel Avenue, making a loop around three sides of the zone. A second connection is located at the Tunnel/Visitacion Avenue intersection, where, according to a San Francisco Water Department map, a 12-inch line extends under the railroad tracks into Zone 1.

Water is stored in several reservoirs throughout San Francisco to provide operational flexibility within the transmission pipelines that deliver RWS supplies to the City. In addition, these reservoirs provide a short-term back-up in the event of a supply emergency. The closest reservoirs in the Project vicinity are the McLaren Park storage tanks and the LeGrande tank (all in McLaren Park) and the University Mount reservoir.

Because the RWS's Sierra surface water supply is obtained from a protected, nearly pristine watershed, the only treatment required prior to delivery is chlorination to kill bacteria and pH balancing to prevent pipe corrosion. Water from Bay Area reservoirs must receive more extensive treatment (primarily filtration) at one of two treatment plants located outside the City before it is blended with Sierra water. The Sunol and Harry Tracy water treatment plants established for this purpose have a combined capacity of approximately 280 mgd, which far exceeds what is needed to treat water that originates in the Bay Area under normal demand conditions. This reserve treatment capacity gives the SPUC the ability to either draw down its local reservoirs or import water from the State Water Project in the event of an emergency interruption in the Sierra water supply. According to the SFPUC's 2005 Urban Water Management Plan (UWMP), these treatment facilities, combined with the high quality of Sierra water, will prevent any future degradation in the quality of water provided by the RWS.

(c) Existing and Future Water Demand. The UWMP breaks down the City's water use into a number of different categories as a means of allocating total demand among its many customer types and estimate future demands. The three main customer categories are single-family residential, multi-family residential, and non-residential. The non-residential category includes all classes of employment. The following tables present the results of this citywide breakdown, based on information presented in the UWMP (UWMP Tables 2 and Table 8B):

2005 (current):

<u>Category of Use</u>	<u># Units or Employees</u>	<u>Total Water Use (mgd)</u>	<u>Average Water Use (gpd)¹</u>
Single-family residential	109,985	18.4	167.0/unit
Multi-family residential	221,448	27.7	122.0/unit
Non-residential	656,480	29.2	44.5/employee
System losses	N/A	0.2	
Construction, docks & shipping	N/A	7.3	
Surface water deliveries outside San Francisco ²	N/A	6.1	
Total San Francisco retail demand from RWS ³		88.9	

2030 (projected):

<u>Category of Use</u>	<u># Units or Employees</u>	<u>Total Water Use (mgd)</u>	<u>Average Water Use (gpd)¹</u>
Single-family residential	111,785	16.2	145.0/unit
Multi-family residential	261,728	26.7	102.0/unit
Non-residential	795,400	33.5	42.1/employee
System losses	N/A	0.2	
Construction, docks & shipping	N/A	7.3	
Surface water deliveries outside San Francisco ²	N/A	6.1	
Total San Francisco retail demand from RWS ³		90.0	

¹ Average water use was calculated from the preceding columns for the purposes of this EIR.

² See 15.1.1(a) ("Existing Water Supply") of this chapter, especially footnote 1.

³ 2.5 mgd of groundwater pumped from the Westside aquifer for park irrigation and 1 mgd of groundwater delivered to Castlewood from wells in the Pleasanton area are not included in the demand total because that water is not supplied by the RWS.

The tables above indicate that, although the numbers of housing units and employees are expected to grow in San Francisco, projections for total water use are essentially flat (increasing by less than 1.5 percent over 25 years). The flat use projections are due to SFPUC-anticipated continuation of conservation practices, primarily due to changes in the plumbing code, which are expected to reduce unit residential demand over the period by more than 13 percent for single-family residences and by almost 16.5 percent for multi-family residences.

San Francisco's retail water use represents only a portion of the water supplied by the RWS; wholesale (outside the City) customers now use 177.9 mgd, or approximately two-thirds of the total RWS supply of 266.8 mgd. The SFPUC expects wholesale deliveries to grow to 209.4 mgd by 2030, an increase of nearly 18 percent, raising the total volume of water supplied by the RWS to 299.4 mgd by 2030 (209.4 + 90.0 mgd). The UWMP has concluded that the RWS would be able to meet this demand during normal precipitation years, while implementation of the WSIP supply enhancement projects (see 15.1.1 [a], "Existing Water Supply," herein) would allow the SFPUC to reduce currently projected shortages from 25 percent to 20 percent of total demand during an 8½-year drought.¹

¹SFPUC, Tables 10 and 12A-12E, pp. 47-53.

15.1.2 Regulatory Framework

(a) San Francisco General Plan. The adopted San Francisco General Plan *Environmental Protection Element* (Utilities--Water Section) contains the following objective and policies pertaining to water service in the Project Area:

- *Assure a permanent and adequate supply of fresh water to meet the present and future needs of San Francisco.* (Objective 5)
- *Maintain an adequate water distribution system within San Francisco.* (Policy 5.1)
- *Exercise controls over development to correspond to the capabilities of the water supply and distribution system.* (Policy 5.2)
- *Ensure water purity.* (Policy 5.3)

(b) State Requirements. The following examples illustrate principal legislation that has been enacted to regulate the supply and use of water throughout California that may be pertinent to the proposed project:

- Assembly Bill (AB) 325, the Water Conservation and Landscaping Act, directs local governments to require the use of low-flow plumbing fixtures and the installation of drought-tolerant landscaping in all new development.
- Senate Bill (SB) 610 requires that before any project subject to the California Environmental Quality Act (CEQA) is approved, the project must have an adopted water supply assessment to determine whether adequate water supplies would be available to meet the requirements of all existing plus new customers (i.e., existing customers plus the project plus other anticipated future growth) during normal conditions and during single-year and multiple-year drought conditions.
- SB 221 elaborates on the requirement for water supply assessments (SB 610) by prohibiting approval of subdivisions consisting of more than 500 dwelling units (or the equivalent water demand) unless the water supplier(s) verifies there is sufficient water supply for the project from the applicable water supplier(s).
- The California Urban Water Management Planning Act (enacted 1983, last revised 2004) requires each urban water supplier to prepare an urban water management plan and update the plan every five years.
- AB 901 requires that the urban water management plan document the quality of a supplier's available water source(s) and provide an assessment of the ways in which water quality affects its water management strategies and supply.
- Section 64562 of the California Health and Safety Code requires each public water system to have sufficient water available from its water sources and distribution reservoirs to supply adequately, dependably, and safely the total requirements of all its users under maximum demand conditions before an agreement can be made to permit additional service connections to that system.

(c) Federal Requirements. The Safe Drinking Water Act (SDWA), established on December 16, 1974, is the main federal law that ensures the quality of drinking water by setting standards for drinking water quality and by providing guidance to the states, localities, and water suppliers who implement those standards.

15.1.3 Significance Criteria

Based on the CEQA Guidelines, the Project (redevelopment program) would create a significant impact on water service if it would:¹

- (1) Result in the need for new or expanded water supply entitlements; or
- (2) Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts.

15.1.4 Impacts and Mitigation Measures

Increased Water Demand. The Project would facilitate development of up to approximately 1,585 new housing units, increasing the housing unit total within the Project Area to approximately 1,761. In addition, the Project would facilitate up to approximately 157,000 square feet (sq. ft.) of new non-residential uses (131,500 sq. ft. retail and 25,000 sq. ft. cultural/institutional/educational) in the Project area. Finally, the Project would facilitate an approximately 39,000 square-foot reduction in other existing commercial space in the Project Area such as offices and auto repair shops.

The new housing would all be multi-family units. These new units would have an estimated average water demand of 102 gallons per day (gpd) per unit,² resulting in a Project Area residential water use increase of approximately 161,670 gpd. The UWMP does not present similar demand measures for non-residential uses, but if it is assumed that retail and cultural/institutional/educational space uses approximately 150 gpd per 1,000 square feet, non-residential water use in the Project Area would increase by an estimated 23,291 gpd. These increases would be offset by the anticipated loss of some commercial space, also with an estimated existing water use of 150 gpd per 1,000 square feet, or approximately 5,850 gpd.³ In total, it is estimated the anticipated Project-facilitated growth increment would increase Project Area water use by up to approximately 179,111 gpd (161,670 + 23,291 - 5,850 gpd).

According to a letter from the SFPUC prepared for this EIR and dated October 11, 2007, "[T]he SFPUC [through the adopted Urban Water Management Plan] has included the water demands associated with the proposed [Visitacion Valley redevelopment] project in future water demands for the City and County of San Francisco."⁴ The letter goes on to state, "The proposed project will not result in a major expansion of the water utility system." Therefore, the Urban Water

¹CEQA Guidelines, Appendix G, items XVI(b and d).

²SFPUC, Table 2, p. 7 and Table 8B, p. 43.

³Retail/commercial water demand factors were taken from the Bayview Hunters Point Redevelopment Projects and Rezoning Draft EIR, San Francisco Redevelopment Agency and San Francisco Planning Department, October 19, 2007, p. III. O-25.

⁴Ellen Levin, SFPUC Director of Water Resources; written communication, October 11, 2007.

Management Plan acts as the water supply assessment required by SB 610, and the SFPUC letter provides the assurance from the water supplier required by SB 221 "... that there is sufficient water supply for the project ...". As a result, the proposed redevelopment program's impact on San Francisco's existing and future water supply would be **less-than-significant** (see criterion 1 in subsection 15.1.3, "Significance Criteria," above).¹

Mitigation. No significant environmental impact associated with water supply and demand has been identified; no mitigation is required.

Potentially Inadequate Water Delivery Infrastructure. If the proposed Project's domestic and fire flow water demands exceed the capacity of the existing Visitacion Valley distribution system, localized water shortages or pressure deficiencies could result.

It is expected that new water lines would be extended throughout Redevelopment Zone 1 to serve anticipated new development, most likely from the two existing City distribution system connections on Bayshore Boulevard and Tunnel Avenue. Given the moderate level of new infill development proposed within the neighborhood on the west side of Bayshore Boulevard, it is unlikely that water distribution improvements would be needed for these areas, particularly since the needed level of fire protection outside Zone 1 is unlikely to change.

It is unknown if the existing water distribution system serving the Project Area would be able to provide the level of fire flow needed by the Project proposed new multi-story buildings. Even if the existing system is able to meet current fire flow needs, it is unknown whether the Project's added fire flow demands could potentially lower pressures in parts of the surrounding vicinity to an unacceptable level.

In accordance with San Francisco Fire Department (SFFD) requirements, future individual development project sponsors within the Project Area would base the design of new water distribution and fire flow infrastructure (e.g., hydrants, sprinklers, emergency storage) on the capacity of the existing Visitacion Valley water distribution system, so as to ensure Project demands would not exceed the limits of this capacity.

Individual development project sponsors would be required to request fire flow evaluations from the SFFD, which would calculate how much fire flow would be available. If the calculated fire hydrant and building sprinkler demands of the individual project exceed this capacity, some form of on-site pumped storage facility would have to be incorporated into the individual project design to provide a pre-determined percentage of the individual project's overall water demand during a fire. Alternatively, the City could identify off-site improvements that would allow the local water system to meet estimated Project Area fire flow demands; such improvements would be constructed or funded by individual development project sponsors as a condition of project approval.

The construction activities associated with such new Project Area water distribution and fire flow infrastructure would be temporary. Associated construction period traffic interruption, dust, odors, and noise typically associated with such construction would be mitigated through normal City construction period mitigation procedures (e.g., see EIR chapters 9 [Air Quality] and 13

¹It is noted the letter from the SFPUC did not include any statement or estimate of the Project's estimated water demand. The water use calculations presented in the previous paragraph were derived from the source listed in footnote 3.

[Noise]). No unusual, significant environmental impact would be anticipated with this construction activity, or with the operation of the new infrastructure. The environmental impacts associated with construction and operation of anticipated new water distribution and fire flow infrastructure associated with the Project would therefore be ***less-than-significant*** (see criterion 2 in subsection 15.1.3, "Significance Criteria," above).

Mitigation. No additional significant environmental impact associated with the construction or operation of new water distribution and fire flow infrastructure in the Project Area has been identified; no additional mitigation is required beyond those measures already identified in this EIR.

15.2 WASTEWATER SERVICE

15.2.1 Setting

(a) Existing Wastewater Collection and Treatment. The Project Area and the Visitacion Valley neighborhood are served by a local wastewater collection (sewer) system that is defined mainly by the principal ridge line that separates the east side of San Francisco from the west side. In the Project vicinity, this principal ridge line runs north from San Bruno Mountain, then crosses Geneva Avenue near South Hill Boulevard into John McLaren Park. This principal ridge line continues north into Bernal Heights, but a spur ridgeline branching off to the east creates Visitacion Valley and the northern boundary of Visitacion Valley's Sunnydale sewer basin, roughly following Mansell Street and Ankeny Street over to Bayshore Boulevard.

The local sewer system begins in the upper elevations of this basin, with pipes running downhill and gradually increasing in size until they join at the intersection of Sunnydale Avenue and Bayshore Boulevard, at the southwest corner of Redevelopment Zone 1. From this point, a single 78-inch diameter sewer tunnel continues east to the end of Sunnydale Avenue, where it crosses the City boundary into Brisbane and runs underneath the San Francisco Solid Waste Transfer and Recycling Center and Bayshore Freeway (U.S. 101) to a 20-foot by 20-foot box culvert/storage facility that runs along the Bay shoreline, adjacent to Harney Way. Wastewater collected in this box culvert is then pumped north through Candlestick Hill to the Hunters Point neighborhood, where it continues picking up wastewater until entering another tunnel that runs through Hunters Point Hill. After leaving this second tunnel, the sewer turns northwest on Fairfax Avenue and then Evans Avenue before discharging into the City's Southeast Water Pollution Control Plant (SEWPCP), which is located near the intersection of Evans Avenue and Third Street.

The total area draining to the 78-inch diameter Sunnydale sewer tunnel--which includes the portion of the Project Area on the west side of Bayshore Boulevard and all other areas located upstream of the Sunnydale/Bayshore intersection, plus Redevelopment Zone 1 on the east side of Bayshore Boulevard, the block surrounded by Hester Avenue, and a the Little Hollywood area on the east side of Tunnel Avenue--is approximately 717 acres. The total area draining to the Harney Way box culvert encompasses an additional 40 acres located between Tunnel Avenue and the freeway, and approximately 28 acres of commercial and residential development within

Executive Park below Candlestick Hill. These two areas (68 acres) have separate connections to the Harney Way box culvert, and do not utilize the Sunnydale tunnel.¹

The SEWPCP collects wastewater from the entire Bayside Drainage Basin, which covers the entire eastern part of San Francisco. Although this basin encompasses approximately half of the geographical area of the City, most of the City's businesses and approximately two-thirds of all its residents are located within its boundaries. As a result, the SEWPCP handles 80 percent of San Francisco's average wastewater flow, currently estimated at 63 million gallons per day (mgd). The remaining 20 percent is treated at the City's Oceanside Water Pollution Control Plant, located adjacent to the San Francisco Zoo.²

The SEWPCP treats wastewater to a secondary level by removing a minimum of 90 percent of a wide range of organic and inorganic contaminants before discharge to San Francisco Bay. During most of the year, this system works well, producing a discharge effluent that meets all applicable federal regulations and requirements of the Regional Water Quality Control Board (RWQCB). However, San Francisco has a combined sewer system that collects not only wastewater but also stormwater runoff when it rains. The resulting surges in total sewer system flow during a storm can increase "dry weather" sewer flows by more than 400 percent, depending on the severity of the storm.³

Until the early 1980s, these surges overwhelmed the SEWPCP, causing as many as 80 discharges of partially treated or completely untreated wastewater into the Bay per year. This water was highly diluted by runoff, but was still environmentally harmful. In response, the City raised the treatment plant's "wet weather" capacity to 210 mgd in 1982, and to 250 mgd in 1994. In addition, a number of the large transmission mains that transport wastewater to the SEWPCP (such as the Harney Way box culvert) were significantly enlarged to provide detention storage for the combined wastewater and stormwater runoff. As flow rates approach the capacity of the SEWPCP, wastewater is detained in these detention facilities, which generally run along the edge of the Bay, where it is held until the storm subsides and additional treatment capacity becomes available.

This combination of treatment plant upgrades and in-line storage (detention) has significantly reduced the number of direct wastewater discharges into the Bay, allowing San Francisco to remain in compliance with the provisions of the federal Clean Water Act that regulate combined sewer systems. However, depending on the distribution and severity of individual rain storms, there still can be as many as ten inadequately-treated discharges per year.⁴ Within the SEWPCP system, these discharges occur at various locations along the Bay shore, where overflow pipes provide an outlet for local storage facilities to prevent over-capacity wastewater

¹San Francisco Department of Public Works, Combined Sewer System Maps, last revised March 1996. The areas listed as draining separately to the Harney Way box culvert are very approximate, since the maps do not show the topographically defined limits of the stormwater runoff watershed. Also, Hydroconsult Engineers, *Sunnydale Sewer Improvements--Phase I: Conceptual Hydraulic Designs*, August 18, 1997.

²San Francisco Public Utilities Commission (SFPUC) website, http://sfwater.org/mto_main.cfm/MC_ID/14/MSC_ID/117/MTO_ID/225, accessed November 14, 2007.

³SFPUC Southeast Water Pollution Control Plant brochure, undated.

⁴SFPUC website, http://sfwater.org/detail.cfm/MC_ID/14/MSC_ID/117/MTO_ID/544/C_ID/3103, accessed November 14, 2007.

and stormwater flows from backing up into their contributing neighborhoods. According to the City's sewer system maps, the closest location to the Project Area where such Bay discharges can occur is from the Harney Way box culvert, near the intersection of Alana Way and Harney Way on the east side of the freeway.

During storm events, the wastewater and runoff receive a form of primary treatment before such direct discharges occur, since heavy contaminants settle to the bottom of the storage facilities and floatable solids are skimmed off the top. After the storm, these retained pollutants are transported to the SEWPCP for treatment.

Although the average number of direct discharges, as well as the level of treatment provided when they occur, is in compliance with current federal and state regulations governing combined sewer systems, the San Francisco Public Utilities Commission (SFPUC) expects these regulations may tighten in the future. In an effort to comply with these anticipated requirements, the SFPUC is considering the adoption of new stormwater control regulations designed to reduce the amount of runoff sent to the sewer system. As now proposed by the SFPUC, all new or development projects that disturb an area of at least 5,000 square feet would be required to permanently *retain* more of the rain that falls on the site, typically by enhancing infiltration opportunities, and temporarily *detain* a large percentage of the remaining runoff, at least until the peak of the storm has passed. These regulations would apply to much of the anticipated development facilitated by the proposed redevelopment program, particularly in the Concept Plan subarea.¹ (Please refer to chapter 12, Hydrology and Water Quality, of this EIR, for further discussion of these potential stormwater related changes in SFPUC policy.)

(b) Existing Project Area Conditions. Zone 1 of the Project Area does not currently contribute significant quantities of wastewater to the City's sewer system, since, even if the existing vehicle storage/material transfer operations located in the southeast corner of the property have connected restroom facilities, only a few employees work in this underutilized subarea.

It is estimated that the existing land uses in the remainder of the Project Area generate the following average dry weather wastewater flows:

<u>Category of Use</u>	<u>Units or Square Feet</u>	<u>Generation Rate²</u>	<u>Wastewater Flow (gpd)</u>
Residential (assumed all single family)	178	131 gpd/unit	23,318
Retail	86,933	135 gpd/1,000 s.f.	11,736
Production/distribution/repair	79,352	135 gpd/1,000 s.f.	10,713
Cultural/institutional/education	17,300	135 gpd/1,000 s.f.	2,336
Office/professional space	13,849	95 gpd/1,000 s.f.	1,316
Medical	2,140	135 gpd/1,000 s.f.	289
Total Wastewater Flow			49,708

¹Wastewater generation rates are estimated at 90 percent of water demand, as presented in section 15.1 (Water Service) of this EIR. The office/professional water demand of 95 gpd/1,000 s.f. is from the Bayview Hunters Point Redevelopment Projects and Rezoning Draft EIR, San Francisco Redevelopment Agency and San Francisco Planning Department, October 19, 2004, p. III. O-25.

²Arleen Navarret, Manager, SFPUC Wastewater Planning and Regulatory Compliance Division; written communication, November 14, 2007.

As previously noted, because the sewer system is designed to carry both wastewater and stormwater runoff, the system has more than enough capacity to carry these average dry weather wastewater flows.

15.2.2 Regulatory Framework

(a) San Francisco General Plan. The adopted San Francisco General Plan *Environmental Protection Element* (Utilities--Wastewater Section) contains the following policy pertaining to wastewater service in the Project Area:

- *Implement plans to improve sewage treatment and halt pollution of the Bay and Ocean.* (Policy 3.3)

(b) State Requirements. Recycled or reclaimed wastewater that is to be used for landscape irrigation, agricultural irrigation, or any other purposes must conform to the applicable requirements of Title 22 of the California Code of Regulations, subject to the approval of the California Department of Health Services (CDHS). At this time, San Francisco uses a relatively small proportion of its treated effluent for primarily construction-related purposes (e.g., dust control, fill compaction, street washing). New individual development projects, however, are required to install separate recycled water lines for landscape irrigation for when it becomes available.

Wastewater treatment plants that serve more than ten connections fall under the jurisdiction of the State Water Resources Control Board (SWRCB). The SWRCB's nine regional boards are charged with protecting ground and surface water quality within their respective regions, so any activities that entail the disposal of significant quantities of wastewater must be reviewed and approved by the regional board to ensure they will not result in adverse environmental effects. The San Francisco Bay Regional Water Quality Control Board (RWQCB) is the principal permitting authority for San Francisco's wastewater treatment plants, which it regulates through the issuance of Waste Discharge Requirements that are periodically reviewed and updated as needed to address changes in a plant's treatment environment.

The City's current National Pollution Discharge Elimination System (NPDES) permit (see [c] below) for the SEWPCP and all its Bayside collection facilities was issued in 2002 by the RWQCB. The permit lists the discharge prohibitions, dry weather effluent limitations, wet weather effluent performance criteria, receiving water limitations, sludge management practices, and monitoring and reporting requirements which govern all aspects of the system's operation. Because this is a combined system with the potential for direct wastewater discharges, San Francisco is also regulated under the provisions of the Federal Clean Water Act's Combined Sewer Overflow Control Policy. This policy was designed to minimize the adverse impacts associated with direct discharges, primarily by requiring permittees to maximize the use of in-line storage, implement pre-treatment programs to remove potentially harmful industrial pollutants from the waste stream, ensure direct discharges receive at least primary treatment, take actions to protect public health in the event of a direct discharge, and, in San Francisco's case, limit direct discharges to an average of no more than ten events per year. At this time, the SEWPCP and the Bayside collection system are in compliance with these regulations, although, as previously noted, the City is developing new policies designed to further reduce the frequency and severity of direct discharges from the combined sewer system.

(c) Federal Requirements. The Federal Clean Water Act, administered by the EPA, provides a framework for the development and implementation of waste treatment management plans

and practices by requiring that wastes be treated using the best practicable technology prior to discharge into either surface or groundwaters, so as to protect water quality and prevent other environmental pollution.

The Water Permits Division (WPD) within the United States Environmental Protection Agency (EPA) Office of Wastewater Management leads and manages the National Pollutant Discharge Elimination System (NPDES) permit program, which oversees stormwater management, discharge of treated wastewater to surface waters, and sanitary sewer overflows. Any unauthorized direct discharges of treated or untreated effluent are subject to NPDES jurisdiction. As noted in subsection (b) above, combined sewer and storm drain systems are subject to a set of specific regulations under the Federal Clean Water Act.

15.2.3 Significance Criteria

Based on the CEQA Guidelines, the Project (redevelopment program) would create a significant impact on wastewater service if it would:¹

- (1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- (2) Require or result in the construction of new wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental impacts; or
- (3) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

15.2.4 Impacts and Mitigation Measures

Increased Wastewater Flows. The SFPUC typically estimates that 90 percent of total domestic water use in San Francisco ends up as wastewater. Section 15.1 (Water Service) of this EIR estimated the anticipated maximum Project Area development increment facilitated by the Project would increase water demand by up to approximately 179,111 gallons per day (gpd) over existing levels of use. If 90 percent of this becomes wastewater, average daily flows to the SEWPCP would increase by 161,200 gpd, or 0.25 percent of the treatment plant's current 63 mgd dry weather flow. The plant has a rated dry weather capacity of 85 mgd,² so this increase would represent 0.7 percent of its currently available excess capacity. As a result, it can be concluded the impact of this Project-related increase in wastewater flows at the SEWPCP would be **less-than-significant** and would not affect the treatment plant's ability to comply with all applicable RWQCB dry weather discharge requirements (see criteria 1 and 3 in subsection 15.2.3, "Significance Criteria," above).

As described in subsection 15.2.1 (Setting), the collection and conveyance system that transports wastewater to the SEWPCP has been designed to accommodate stormwater plus wastewater flows, so its capacity far exceeds that required for wastewater alone. As a result, the impact of redevelopment program-related increased dry weather wastewater flows on this system would be **less-than-significant** (see criterion 2 in subsection 15.2.3, "Significance

¹CEQA Guidelines, Appendix G, items XVI(a, b, and e).

²SFPUC Southwest Water Pollution Control Plant Brochure, undated.

Criteria," above). (Please refer to Hydrology and Water Quality, chapter 12 of this EIR, for an evaluation of the Project's impact on wet weather flows in the collection and conveyance system and at the SEWPCP.)

Mitigation. No significant impact associated with wastewater service has been identified; no mitigation is required.

15.3 SOLID WASTE DISPOSAL/RECYCLING

15.3.1 Setting

(a) Existing Solid Waste Collection and Disposal Services to the Project Area. SF Recycling & Disposal Inc., a subsidiary of Norcal Waste Systems Inc., manages solid waste collection, recycling, and disposal services to the Project Area. Residential and commercial solid waste is collected by Sunset Scavenger Company and delivered to the San Francisco Solid Waste Transfer and Recycling Center (both subsidiaries of Norcal), which is located directly across Tunnel Avenue from the southeastern Project Area boundary. After the solid waste is sorted and recycled (i.e., diverted), the waste that is not diverted is transferred to the Altamont Landfill at Altamont Pass Road in Livermore, approximately 60 miles from San Francisco. The estimated remaining capacity of the landfill is approximately 124.4 million cubic yards,¹ and its current permit to operate extends to January 1, 2025.²

(b) Recycling and Waste Diversion. The City and County of San Francisco Department of the Environment (SF Environment) works with residents and businesses to promote waste reduction, reuse, and recycling throughout the City in order to conserve valuable resources and reduce the amount of material that is sent to the landfill. SF Environment responsibilities include maximizing waste prevention, meeting a state-mandated requirement to divert 50 percent of disposed materials from landfills (see upcoming "Regulatory Framework") and matching Alameda County's diversion rate, which is required as part of the agreement with Altamont Landfill & Resource Recovery, which operates the Altamont Landfill.³

Sunset Scavenger Company operates the recycling program for the Project Area. The curbside residential recycling program includes separate carts for recyclables (e.g., bottles, cans, paper), organics (e.g., food scraps, yard trimmings), construction and demolition debris, and garbage. Sunset Scavenger operates a similar, larger-scale program for businesses, including larger carts for recycling bottles/cans, cardboard, commingled recycling (paper, bottles, cans), organics, mixed paper, construction and demolition debris, and garbage. San Francisco currently diverts 69 percent of the solid waste it discards, thereby meeting the current state-mandated 50 percent requirement and almost meeting the 2010 requirement of 75 percent.⁴

¹Brad Drda, Environmental Manager, SF Recycling and Disposal Inc.; written communication, July 12, 2007.

²California Integrated Waste Management Board (CIWMB) website, www.ciwmb.ca.gov/SWIS ("Facility/Site Summary Details"), accessed November 28, 2007.

³SF Environment website, www.sfenvironment.com, accessed November 27, 2007; and Bayview Hunters Point Redevelopment Projects and Rezoning Draft EIR, San Francisco Redevelopment Agency and San Francisco Planning Department, October 19, 2004, p. III.O-13.

⁴SF Environment website, accessed November 27, 2007.

The San Francisco Waste Generation Study (May 2005) reported the total amount of various wastes collected in the different carts described above. Based on the Waste Generation Study, the average annual waste generation per San Francisco resident is as follows:¹

- 1,146 pounds of garbage,
- 380 pounds of recyclables,
- 354 pounds of construction and demolition debris, and
- 200 pounds of organics.

15.3.2 Regulatory Framework

(a) San Francisco General Plan. The adopted San Francisco General Plan *Community Facilities Element* (Solid Waste Facilities Section) contains the following objective and policy relevant to solid waste disposal/recycling in the Project Area:

- *Locate solid waste facilities in a manner that will enhance the effective and efficient treatment of solid waste.* (Objective 11)
- *Provide facilities for treatment of solid waste and locate such facilities as shown on the Wastewater and Solid Waste Facilities Plan.* (Policy 11.1)

(b) San Francisco Ordinance No. 27-06. Ordinance No. 27-06, which took effect on July 1, 2006, created Chapter 14 of the Environment Code entitled “Construction and Demolition Debris Recovery Ordinance,” associated Chapter 13B of the Building Code entitled “Construction and Demolition Debris Recovery Program,” and associated Sections 288 and 288.1 of the Health Code. Chapter 14 requires, in part, that an applicant “conducting full demolition of an existing structure must submit a waste diversion plan to the Director [of the Department of the Environment] which provides for a minimum of 65% diversion from landfill of construction and demolition debris....The plan must be submitted at the time the applicant applies for a demolition permit from the Department of Building Inspection and must include the following information: a list of all material types and volumes anticipated from the demolition; the market or destination for each material; the estimated recovery rate (diversion from landfill) by material or market; and the anticipated transporter for each material” (Chapter 14, Section 1402[b]). Chapter 13B and Sections 288 and 288.1 describe more detailed requirements.

(c) California Integrated Waste Management Act. The California Integrated Waste Management Act of 1989 required cities to divert 25 percent of their solid waste from landfills by 1995, and 50 percent by the year 2000. As noted above, San Francisco is already diverting 69 percent of its solid waste, thereby meeting the current state-mandated 50 percent requirement and almost meeting the 2010 requirement of 75 percent. Through Resolution No. 679-02, the San Francisco Board of Supervisors adopted a goal of zero waste by the year 2020.

15.3.3 Significance Criteria

Based on the CEQA Guidelines, the Project (redevelopment program) would create a significant environmental impact related to solid waste services if its implementation would:²

¹Drda.

²CEQA Guidelines, Appendix G, items XIII(a), XVI(f and g), and IX(b).

- (1) Result in a need for new or physically altered facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for solid waste service;
- (2) Be served by a landfill with insufficient permitted capacity to accommodate Project-related solid waste disposal needs; or
- (3) Fail to comply with federal, state, and local statutes and regulations related to solid waste.

15.3.4 Impacts and Mitigation Measures

Impacts on Solid Waste/Recycling Facilities. The redevelopment program would facilitate a 2008-2025 growth increment of up to approximately 5,896 new residents in the Project Area. Using the same generation factors identified for existing waste generation (see 15.3.1[b], "Recycling and Waste Diversion," above), the redevelopment program-facilitated population growth increment is expected to generate the following approximate solid waste totals annually:

- 3,381 tons of garbage,
- 1,121 tons of recyclables,
- 1,044 tons of construction and demolition debris, and
- 590 tons of organics.

In total, the redevelopment program-facilitated population growth increment would generate up to an estimated 6,136 tons of solid waste per year, which would represent an approximately 0.7-percent increase in the solid waste stream of San Francisco. SF Recycling & Disposal Inc., as the overall manager of solid waste collection, recycling, and disposal services in the Project Area, has concluded that the designated solid waste collector, Sunset Scavenger Company, can readily accommodate the additional solid waste generated by the Project, with no need for new or physically altered facilities (e.g., expansion of the transfer and recycling center).¹

The Altamont Landfill's current permit extends to the year 2025, and under its agreement with Altamont Landfill & Resource Recovery, the City can continue to use the landfill as long as the City continues to meet or exceed Alameda County's diversion rate. Alameda County (15 jurisdictions) has an overall average diversion rate of 49 percent (2005 preliminary data, most recent available),² while San Francisco's current diversion rate is 69 percent.

The redevelopment program is not expected to generate an inordinate amount of solid waste for its size either during program-facilitated demolition/construction activities or long-term "operation," and would be served by solid waste disposal/recycling facilities with sufficient capacities to accommodate Project-related demolition/construction debris and long-term annual solid waste disposal/recycling needs at buildout. The Project's effect on solid waste disposal/recycling facilities would therefore represent a ***less-than-significant impact*** (see criteria 1 and 2 in subsection 15.3.3, "Significance Criteria," above).

¹Drda.

²CIWMB website, www.ciwmb.ca.gov/LGTools ("Countywide, Regionwide, and Statewide Jurisdiction Diversion Progress Report"), accessed November 28, 2007.

Impact 15-1: Solid Waste Diversion Impacts. Due to the proposed mid-rise design of many of the Redevelopment Zone 1 buildings and possibly some of the west-side Bayshore Boulevard buildings (e.g., see figures in chapter 3 of this EIR), the Project has the potential to conflict with state-mandated requirements for 50 percent solid waste diversion if residents/tenants find the locations of recycling carts to be too distant or inconvenient. Site and conceptual design plans at this time do not provide enough detail to determine if adequate provisions for recycling will be included in the designs of future buildings associated with the Project-facilitated growth increment. If adequate recycling provisions are not specifically required, the Project could conflict with state-mandated waste diversion requirements, representing a ***potentially significant impact*** (see criterion 3 in subsection 15.3.3, "Significance Criteria," above).

Mitigation 15-1. Final architectural designs for individual developments permitted in the Project Area shall indicate adequate space in buildings to accommodate three-bin recycling containers. Space designated for recyclables (blue bins) and organics (green bins) shall be larger than the space provided for garbage (black bins). If waste chutes are provided, there shall be three waste chutes, one each for recyclables, organics, and garbage; an automated system that effectively accommodates three waste streams in a single chute would be acceptable. The City shall ensure that these provisions are included in Project-facilitated building construction prior to issuance of a Certificate of Occupancy. Implementation of this measure would reduce the impact to a ***less-than-significant level***.

Design for Development Acceptance into LEED-Neighborhood Developments Pilot Program. As described in section 3.9.5 (Design for Development "Green" Strategies) herein, the proposed 2002 Schlage Lock Concept Plan, and the associated 2008 Design for Development-based development control program which incorporates and builds upon the 2002 Concept Plan), have been accepted into the LEED-Neighborhood Developments (LEED-ND) Pilot Program, which is an inter-agency "green building" effort administered locally by SF Environment (the City's Department of the Environment). The LEED-ND Pilot Program has also been adopted by the Redevelopment Agency, Planning Department, Public Utilities Commission, and Municipal Transportation Agency (MUNI), as well as Pacific Gas & Electric and other entities.

LEED ("Leadership in Energy and Environmental Design") is a certification program established by the United States Green Building Energy Council (USGBC) that has become the nationally accepted benchmark system for the design, construction, and operation of "green" buildings. LEED promotes a whole-systems approach to sustainability by recognizing performance in five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. The following LEED-ND Pilot Program information has been provided by SF Environment for this EIR.¹

¹ Rich Chien, Residential Green Building Coordinator, SF Environment; written communication, July 26, 2007.

The goal of the LEED-ND Pilot Program is to ensure that the LEED rating system is used as a practical application and effective tool for introducing smart growth, new urbanist, and green building practices to local planners and developers. The LEED certification scoring targets range from 40 points ("Certified") to 106 points ("Platinum"). Based on a preliminary LEED-ND (Neighborhood Developments) analysis, the Redevelopment Zone 1 development program as described in the 2002 Concept Plan and 2008 Design for Development (which incorporates and expands upon the 2002 Concept Plan) would score approximately 58 points (out of a possible 106), achieving a high LEED Silver "pre-review" certification. If the currently proposed sustainability strategies for Zone 1 are implemented, and associated green building standards and energy efficient systems are substantially deployed in the future Zone 1 built environment, there is a high likelihood that the future Zone 1 built environment could achieve LEED Gold or Platinum certifications (the highest levels).

Although quantifiable savings in water, energy, and other environmental factors (such as greenhouse gas emissions--see EIR chapter 9, Air Quality) are not available at this preliminary stage for the Zone 1 development program, the program's acceptance and participation in the LEED-Neighborhood Developments Pilot Program is considered to represent a ***potential beneficial effect*** of the Project.

15.4 GAS AND ELECTRICITY

15.4.1 Setting

(a) Gas and Electricity Providers. The Pacific Gas and Electric Company (PG&E), which is headquartered in San Francisco, provides gas and electrical services to private residential and commercial customers in San Francisco. PG&E provides gas and electric services to approximately thirteen million people throughout its 70,000-square-mile service area in Northern and Central California. The utility delivers gas to its customers through an estimated 45,000 miles of gas pipelines. Electricity is produced at numerous locations around the state, including coal, gas, nuclear, hydroelectric, and geyser plants. PG&E delivers electricity to its customers through an estimated 136,500 miles of transmission lines that span the service area.¹

Hetch Hetchy Water and Power supplies electricity to the City and County of San Francisco to power city street lights and to run municipal offices and services, including Muni and the San Francisco International Airport. San Francisco operates three power plants in the Sierra Nevada that are capable of producing over 400 megawatts (MW) of electricity. Under the terms of the *Raker Act*, which permitted the Hetch Hetchy system, the City must sell any power that is surplus to meeting its municipal needs to the Modesto and Turlock Irrigation Districts (and once the needs of these districts are met, to other public power agencies) at cost. San Francisco is prohibited from selling Hetch Hetchy generated power to any investor-owned utility.²

San Francisco's current peak energy demand of approximately 900 MW is expected to increase to almost 1,100 MW by the year 2012. Demand is met by a combination of generation and transmission. There were recently two power plants located within the City and County of San Francisco--the Potrero Power Plant and the Hunters Point Power Plant--that met some of the local need for electricity. These plants generated 570 MW, but through a settlement agreement

¹http://www.cpuc.ca.gov/Environment/info/aspen/jefferson_martin/feir.htm.

²The Electricity Resource Plan: Choosing San Francisco's Energy Future, December 2002.

between San Francisco and PG&E, the Hunters Point Power Plant (which used to produce 213 MW) was closed in May 2006. San Francisco is proposing to install several mid-size gas turbine generators, promote energy efficiency, and install alternative energy projects in the near future to help meet energy demand, but to meet peak demand, electricity will have to continue to be imported through transmission lines that connect through PG&E's Martin Service Center in Daly City to the rest of PG&E's power grid.¹

PG&E imports electricity through the Martin Service Center to meet demand in San Francisco. The imported electricity is delivered from the Martin Service Center to PG&E substations located around the city, and from there it is delivered to individual homes and businesses in San Francisco. In August 2004, the California Public Utility Commission approved PG&E's proposal to construct a new 27-mile 230 kilovolt (kV) transmission line from the Jefferson Service Center in San Mateo County to the Martin Service Center to improve capacity and reliability of the electricity supply in San Francisco and on the Peninsula. With the approval of this project, which broke ground in 2005, San Francisco's electricity requirements will be met for the foreseeable future.²

(b) Other Utilities. A number of private companies provide telephone, internet access, and cable TV services to residents of San Francisco, including residents of the Project Area. Most of these utility and service lines are buried beneath City streets, which are maintained by the San Francisco Department of Public Works (DPW). Any service company wishing to excavate in the public right of way is required to obtain an excavation permit from DPW. DPW publishes rules regarding who can dig where, when and how, and requires restoration of the public right of way upon completion of work. Most excavation in City streets is done by utilities, both private (such as PG&E, Pacific Bell, and TCI) and public (such as San Francisco PUC and DPW).³

15.4.2 Regulatory Framework

(a) California Energy Plans and Policies. New and remodeled buildings in California are regulated by the Energy Efficiency Standards for Residential and Non-Residential Buildings, Title 24, Part 6 of the California Code of Regulations. These standards, which apply to new construction of both residential and non-residential buildings, regulate the use of energy for heating, cooling, ventilation, water heating, and lighting. New buildings must also comply with the requirements of the Uniform Building Code which requires specific energy saving measures such as insulation, window glazing, weather sealing, choice of building materials, and water- and energy-conserving plumbing fixtures.

The California Energy Resources Conservation and Development Commission is currently considering applications for the development of new power-generating facilities in San Francisco, the Bay Area, and elsewhere in the state. These facilities could supply additional energy to the power supply grid within the next few years. These efforts, together with conservation, will be part of the statewide effort to achieve energy efficiency.

(b) San Francisco Energy Plans and Policies. The *Environmental Protection Element* of the San Francisco General Plan contains the City's objectives and policies for energy management.

¹<http://temp.sfgov.org/sfenvironment/aboutus/energy/policy.htm>.

²http://www.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/31992.htm.

³<http://209.77.149.9/sfdpw/sccc/utltpmt.htm>.

The *Environmental Protection Element* has the following goals for energy efficiency: (1) to increase the efficiency of local energy use; (2) to diversify the present balance of resource supplies to meet local energy needs; (3) to foster the economic development of energy management services and renewable energy systems; and (4) to encourage the active participation of members of the community in carrying out this program. The *South Bayshore Area Plan* of the General Plan focuses on energy management within the Project Area. Relevant policies are listed below.

- *Promote the South Bayshore as an area for implementing energy conservation and alternative energy supply initiative. (Policy 17.1)*
- *Strengthen linkages between district energy planning efforts and overall community development goals and objectives. (Policy 17.2)*
- *Encourage land use patterns which will reduce transportation needs and encourage methods of transportation which will use less energy. (Policy 18.1)*
- *Enhance the energy efficiency of housing in South Bayshore. (Policy 18.2)*
- *Promote effective energy management practices in new and existing commercial and industrial facilities to increase energy efficiency and maintain the economic viability of business. (Policy 18.3)*
- *Encourage energy conservation and resource management in community facilities and operations in South Bayshore. (Policy 18.4)*

15.4.3 Significance Criteria

For the purposes of this EIR, the Project would be considered to have a significant effect on gas and electricity if it would:

- (1) Result in an insufficient or wasteful consumption of local and regional energy supplies or require significant additional energy capacity for the area or region;
- (2) Create a strain on peak- and base-period demands for electricity and other forms of energy; or
- (3) Not comply with existing energy standards.

15.4.4 Impacts and Mitigation Measures

Project Energy Demand. Future development expected to occur under the proposed redevelopment program would include re-use and rehabilitation of existing buildings as well as the construction of new structures. Individual project-specific development in the Project Area would be required to meet current state and local codes concerning energy consumption, including Title 24 Energy Conservation Standards of the California Code of Regulations. The San Francisco Department of Building Inspection would enforce compliance with Title 24 through the building permit review process. As a result, development resulting from Project implementation would adequately conserve energy and would not result in a significant environmental impact on energy resources.

The California Energy Commission is currently considering applications for the development of new power-generating facilities in San Francisco, the Bay Area, and elsewhere in the state. These facilities could supply additional energy to the power supply grid within the next few years. Project-generated electricity demand would be minimal in the context of overall demand within San Francisco and the state, and would not in and of itself require a major expansion of power facilities. Therefore, the energy demand associated with the proposed Project would not result in a significant physical environmental effect.

The Hetch Hetchy system is expected to continue producing more than enough power to meet San Francisco's municipal needs, with surplus power continuing to be sold at cost to the Modesto and Turlock Irrigation Districts. Both San Francisco and PG&E are involved in preparing annual projections of electricity demand in San Francisco and in planning to meet future demand and increase grid reliability. As noted above, the City and County of San Francisco is developing local alternative energy supply projects and installing conventional mid-size gas turbines that will enhance local power generation capability and make the city less dependent on imported power to meet peak demand. These changes, in combination with the construction of PG&E's recently approved Jefferson-Martin transmission line, would ensure that there would be sufficient power to meet demand in San Francisco with implementation of the proposed redevelopment program. As a result, the environmental impacts associated with Project gas and electricity demand would be **less-than-significant** (see criteria 1 through 3 in subsection 15.4.3, "Significant Criteria," above).

Mitigation. No significant impact associated with gas and electricity has been identified; no mitigation is required.

16. CEQA-REQUIRED ASSESSMENT CONCLUSIONS

This chapter summarizes the EIR findings in terms of the various assessment categories suggested by the California Environmental Quality Act (CEQA), section 21100. The findings of this EIR are summarized below in terms of redevelopment program-related "growth inducement," "unavoidable significant adverse impacts," "irreversible environmental changes," "cumulative impacts," and "effects found not to be significant."

16.1 GROWTH-INDUCING IMPACTS

Section 21100(b)(5) of CEQA requires that an EIR include information regarding the growth-inducing impacts of the proposed project. CEQA Guidelines section 15126.2(d) states that the discussion should include 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."*

16.1.1 Internal Growth-Inducement

Project Area growth inducement and increased economic activity and investment are intended impacts (i.e., goals) of the proposed Visitacion Valley redevelopment program. If Project objectives as described in sections 3.4 (Project Objectives) and 3.6 (Proposed Redevelopment Plan) of this EIR are successfully achieved, a program of long-term revitalization activities is expected to occur, including an increased intensity of residential, neighborhood-serving retail, and cultural/institutional/educational development in the Project Area.

It is also assumed that, as required by law, future Project-facilitated development would take place within the framework of the San Francisco General Plan and Planning Code, as amended--i.e., as illustrated on Figures 3.9 and 3.10 in chapter 3 (Project Description) of this EIR. The Project would be expected to facilitate an increased rate of residential, neighborhood-serving retail, and cultural/institutional/educational development in the Project Area consistent with these illustrated General Plan and zoning designations.

The proposed changes in development controls--including the proposed General Plan amendments, associated Planning Code changes, and Design for Development provisions--would change anticipated buildout characteristics of the Project Area. The estimated net increase in Project Area development between now and the year 2025--the "Project-facilitated growth increment"--is summarized in Table 16.1.¹

¹Please note that the year 2025 development scenario that has been used in this EIR for "worst-case" environmental impact assessment may be different from the development estimates on which the fiscal analysis in the Preliminary Report for the Redevelopment Plan are based. The Preliminary Report fiscal analysis assumes a smaller, more fiscally conservative growth scenario than does this EIR so that estimated revenues are conservative rather than overstated (i.e., a "worst-case" economic scenario with a smaller rate of revitalization and growth, and corresponding slower rate of tax increment growth).

Table 16.1
VISITACION VALLEY PROJECT AREA GROWTH PROJECTIONS WITH PROJECT

	<u>Redevelopment Zone 1</u>	<u>Redevelopment Zone 2</u>	<u>Totals</u>
Residential (units)			
Existing	3	173	176
New (net growth)	<u>1,250</u>	<u>335</u>	<u>1,585</u>
Total	1,253	508	1,761
Retail Commercial (sq. ft.)			
Existing	0	86,933	86,933
New (net growth)	<u>105,000</u>	<u>26,500</u>	<u>131,500</u>
Total	105,000	113,433	218,433
Other Commercial (sq. ft.)¹			
Existing	5,500	95,341	100,841
New (net growth) ²	<u>(5,500)</u>	<u>(33,877)</u>	<u>(39,377)</u>
Total	--	61,464	61,464
Cultural/Institutional/ Educational³			
Existing	0	17,300	17,300
New (net growth)	<u>15,000</u>	<u>10,000</u>	<u>25,000</u>
Total	15,000	27,300	42,300

SOURCE: Redevelopment Agency and Planning Department; October 2006.

¹ "Other Commercial" includes medical/dental office facilities; offices; and production, distribution, and repair uses (including auto-related).

² Projected reduction in "Other Commercial" floor area total reflects Project intent to facilitate a transition in Project Area commercial use from general commercial to neighborhood-serving retail.

³ "Cultural/Institutional/Educational" includes community centers and libraries.

Based on the general assumptions described in subsections 3.11 (Project-Facilitated Growth Assumptions) in chapter 3 (Project Description), and consideration of existing land use characteristics and potential, the projections of Project-facilitated growth in the Project Area in Table 16.1 have been developed by Redevelopment Agency and Planning Department staff. The projections are intended to reflect the assumption that the redevelopment program will be highly successful in stimulating, directly and indirectly, the development of a substantially greater amount of additional residential, neighborhood-serving retail, and cultural/institutional/educational development than a future without-project scenario.

As shown in Table 16.1, it is estimated that the proposed combination of Redevelopment Plan activities, Design for Development provisions, and General Plan amendment/Planning Code changes in the Project Area would facilitate a net housing increase of up to approximately 1,600 new units, a net retail commercial increase of up to approximately 132,000 square feet, a net decrease in office and production/distribution/repair uses of up to approximately 39,000 square feet, and a net increase in cultural/institutional/educational uses (community centers and library) of up to approximately 25,000 square feet.

16.1.2 External Growth-Inducement

The primary growth-inducing impacts of the Project would be confined within the boundaries of the Project Area. To a lesser degree, secondary growth-inducing impacts (the "multiplier" effect) could also be expected in portions of the City and immediate area outside the Project Area boundary. In particular, Project-induced increases in the local residential population could be expected to have a "multiplier" effect, increasing community-supporting commercial and other activities in the surrounding area. In addition, Project-facilitated infrastructure improvements and the land use intensification that would be facilitated within the Project Area might induce additional pressure to intensify use of adjacent underused lands in the City of Brisbane's Baylands area.

Such secondary growth-inducing land use impacts outside the Project Area would occur primarily in the form of future individual development and business activity proposals and associated applications. Most of this primary and secondary growth inducement would be expected to occur in a manner consistent with existing General Plan and zoning controls and, where applicable, would also be subject to project-specific environmental impact documentation and public review under CEQA to ensure that any associated significant adverse environmental impacts are adequately addressed. These standard procedures and requirements would be expected to reduce such secondary growth-inducement impacts of the Project to less-than-significant levels, unless specific statements of overriding consideration were adopted consistent with CEQA.

16.2 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

CEQA Guidelines section 15126.2(b) requires that the EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." Significant unavoidable impacts are those that would not be reduced to less-than-significant levels by the mitigation measures recommended in the EIR.

Mitigation measures have been identified in this EIR sufficient to reduce identified significant and potentially significant effects associated with the proposed redevelopment program to less-than-significant levels, with the exception of the following significant impacts which have been identified as unavoidable:

- **Impact 8-1: Existing Plus Project Impacts on Intersection Operation** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-2: Existing Plus Project Impacts on U.S. 101 Freeway Segment Operation** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-3: Project Queuing Impacts at Redevelopment Zone 1 Access Points** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-4: 2025 Cumulative Impacts on Intersection Operation** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-5: 2025 Cumulative Impacts on U.S. 101 Freeway Segment Operation** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-7: 2025 Cumulative Impacts on Intersection Operation with Planned Regional Roadway Improvements** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-8: 2025 Cumulative Impacts on U.S. 101 Freeway Segment Operation with Planned Regional Roadway Improvements** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 8-9: Project Impacts on Transit Service** (see chapter 8--Transportation and Circulation--of this EIR);
- **Impact 9-2: Long-Term Regional Emissions Impacts** (see chapter 9--Air Quality--of this EIR); and
- **Impact 10-1: Destruction or Degradation of Historical Resources** (see chapter 10--Cultural and Historical Resources--of this EIR);

16.3 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines section 15126.2(c) requires that an EIR also discuss "significant irreversible environmental changes which would be caused by the proposed project should it be implemented." As indicated in section 16.1 above, the proposed Visitacion Valley redevelopment program would consist of a series of actions and improvements that would foster desired land use intensification in the Project Area. Due to the scale of the proposed Project and the commitment of resources involved in its implementation, the various physical effects of the Project identified in this EIR would be considered "irreversible environmental changes." The future removal of Project-facilitated land use and infrastructure changes, and associated impact reversals, would be highly unlikely, and therefore the various anticipated Project-facilitated physical changes can be considered "irreversible."

Implementation of the proposed redevelopment program would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and automobiles during demolition, construction, and ongoing use of the development and redevelopment sites. Because residential, commercial, and cultural/institutional/educational development facilitated by the Project would be required by law to comply with California Code of Regulations Title 24, it would not be expected to use energy in a wasteful, inefficient, or unnecessary manner. In addition, the proposed Redevelopment Zone 1 development program has been accepted into the LEED-Neighborhood Developments Pilot Program (see EIR chapter 3, Project Description).

The consumption or destruction of other non-renewable or slowly renewable resources would also result during construction, occupancy, and use of individual development sites under the redevelopment program. These resources would include, but would not be limited to, lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. Development under the redevelopment program would also irreversibly use water and solid waste landfill resources. However, development under the redevelopment program would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering the City and County of San Francisco's extensive green building standards (e.g., resulting from the Mayor's Task Force on Green Buildings).

Although Project development (especially in Redevelopment Zone 1) would be subject to a comprehensive array of green building standards, development under the redevelopment program would contribute both directly and indirectly to long-term increases in greenhouse gas emissions, albeit to a lesser extent than if the same growth and development were to occur outside of the central city and away from transit services, including the Muni Third Street Light Rail system and Caltrain Bayshore multi-modal transit station (see "Greenhouse Gases Impacts" in chapter 9, Air Quality, herein).

16.4 CUMULATIVE IMPACTS

Section 15130(a) of the CEQA Guidelines requires that the EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." The CEQA Guidelines (section 15355) define "cumulative impacts" as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Accordingly, various environmental topic chapters of this EIR include discussions of potential cumulative impacts of the Project when its incremental effect under the topic is cumulatively considerable.

The CEQA Guidelines (section 15130) authorize the Lead Agency to limit this cumulative analysis of probable future projects to those which are planned or which have had an application made at the time the NOP is released for review (CEQA Guidelines section 15130(b)(1)(B)). Accordingly, Table 5.1 in chapter 5 (Land Use) of this EIR lists recently approved and pending substantive development projects in the southeast area of the City as of the NOP release date for this EIR (August 2007), and corresponding Figure 5.1 in chapter 5 shows the location of those projects. As shown in Table 5.1, the majority of this anticipated cumulative retail/commercial, office/research and development, hotel and extended-stay, and other non-residential development in the area is located outside the City in the adjacent City of

Brisbane "Baylands" Specific Plan area. An environmental impact report (EIR) is currently being prepared by the City of Brisbane for the proposed Specific Plan.

In addition to the anticipated local development listed in Table 5.1, other future cumulative development is anticipated throughout the City under the provisions of the City's adopted General Plan. Development is also anticipated over time in the neighboring Peninsula communities of Colma and Daly City.

The cumulative effects of anticipated redevelopment program-facilitated growth and the anticipated surrounding development scenario on land use, population and housing, visual factors, transportation and circulation, air quality, cultural and historical resources, hazards and hazardous materials, hydrology and water quality, noise, public services, and utilities and public services have been fully considered and are discussed as warranted in chapters 5 through 15 of this EIR.

16.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

The San Francisco Redevelopment Agency and the Planning Department of the City and County of San Francisco in their preparation of an Initial Study Checklist for the proposed Visitacion Valley redevelopment program determined that a number of specific categories of environmental effect would not occur, would be insignificant, or would be adequately addressed through subsequent City development review procedures with no need for further environmental assessment in this program EIR. These environmental effects (i.e., on agricultural resources, biological resources, geology and soils, and mineral resources) are identified in appendix 20.1 of this EIR, which contains the Initial Study checklist and narrative.

17. ALTERNATIVES TO THE PROPOSED PROJECT

The potential environmental consequences of the proposed Visitacion Valley redevelopment program ("the Project") have been analyzed in detail in this EIR. To provide a basis for further understanding of the environmental effects of the proposed Project and possible approaches to reducing identified significant impacts, section 15126.6 of the CEQA Guidelines (Consideration and Discussion of Alternatives to the Proposed Project) requires an EIR to also "...describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Section 15126.6(b) of the CEQA Guidelines states that, because the EIR must identify ways to mitigate or avoid significant effects of the proposed project on the environment, "[T]he discussion of alternatives shall focus on alternatives to the project or its location which 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, or would be more costly."

CEQA Guidelines section 15126.6(d) indicates that the EIR comparison of the impacts of the identified alternatives is intended to be less detailed than the discussion of the impacts of the proposed project.¹ Following that guideline, the discussions in this chapter of the comparative impacts of the six additional identified alternatives are intentionally less detailed than the discussions in EIR chapters 5 through 15 of the significant effects of the proposed Project.

Pursuant to CEQA Guidelines section 15126.6, this EIR chapter compares six identified alternatives to the proposed Project. The six identified alternatives are:

- **Alternative 1: No Project--Expected Growth Without the Project.** This alternative is based on San Francisco Planning Department projections of anticipated net new development in the Project Area *without implementation of the proposed redevelopment program*.² Under this alternative, no Redevelopment Plan, Design for Development or associated General Plan amendments or Planning Code changes described in EIR chapter 3 (Project Description) would be adopted. Compared to the proposed Project, this alternative is projected to result in approximately 1,577 fewer net residential units, 130,300 fewer net square feet of retail space, 17,000 fewer net square feet of cultural space, and 45,280 *more* net square feet of other commercial space.

¹CEQA Guidelines section 15126.6(d) states, "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."

²From the San Francisco Redevelopment Agency and Planning Department's Growth Allocation Data--Option C, October 2006, which predicted the net new development increments that could be expected in the Project Area if no redevelopment program were implemented.

The No Project--Expected Growth Without the Project alternative is consistent with CEQA Guidelines section 15126.6(e)(1), which states, in part, "The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." Section 15126.6(e)(2) explains, in part, "The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." In addition, CEQA Guidelines section 15126.6(e)(3)(C) concludes, "[T]he [no project] analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing environment."

For this EIR, the "existing conditions" referred to in the CEQA Guidelines are the "Setting" sections of each environmental topic chapter (5.1--Land Use Setting, 8.1--Transportation and Circulation Setting, etc.). These "Setting" sections are hereby incorporated into the No Project alternative as the description of existing environmental conditions.

Pursuant to CEQA Guidelines section 15126.6(e)(2), the No Project alternative in this EIR focuses on "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

- **Alternative 2: Reduced Housing Development in Redevelopment Zone 1.** Primarily as a means of reducing peak-period vehicular trip generation, this alternative would include only 400 residential units and a stand-alone grocery store and retail center in Redevelopment Zone 1. The result would be approximately 850 fewer net residential units. All other proposed development under the redevelopment program would remain as described in chapter 3 (Project Description) of this EIR.
- **Alternative 3: Stand-Alone Grocery Store/Retail Along Bayshore Boulevard South of Visitacion Avenue.** Similar to Alternative 2, Alternative 3 is intended primarily to reduce peak-period vehicular trip generation and would include a stand-alone grocery store and retail center of approximately 70,000 square feet in Redevelopment Zone 1 along Bayshore Boulevard south of Visitacion Avenue. Different from Alternative 2, this alternative would provide approximately 950 (instead of 400) residential units in Redevelopment Zone 1. *Unlike the proposed Project, no housing would be provided on the upper floors of the grocery store and retail center;* the result would be approximately 300 fewer net residential units. All other proposed development under the redevelopment program would remain as described in chapter 3 (Project Description) of this EIR.
- **Alternative 4: Preservation and Re-use of All Schlage Lock Plant 1 Buildings.** The proposed Project proposes the preservation and re-use of Schlage Lock Plant 1 Building A, known as the "Old Schlage Administration Building," as a community center. Consistent with a suggestion of the San Francisco Landmarks Preservation Advisory Board (LPAB), this alternative would preserve and re-use the other two Schlage Lock Plant 1 buildings, known as Building B (Sawtooth Building, 188,050 square feet) and Building C (Ancillary Building, approximately 1,500 square feet), both of which are considered "contributing" to a potential "Schlage Lock Factory Historic Site" (see detailed descriptions in EIR chapter 10,

Cultural and Historical Resources). The buildings are located directly south of the Old Office Building (Building A).

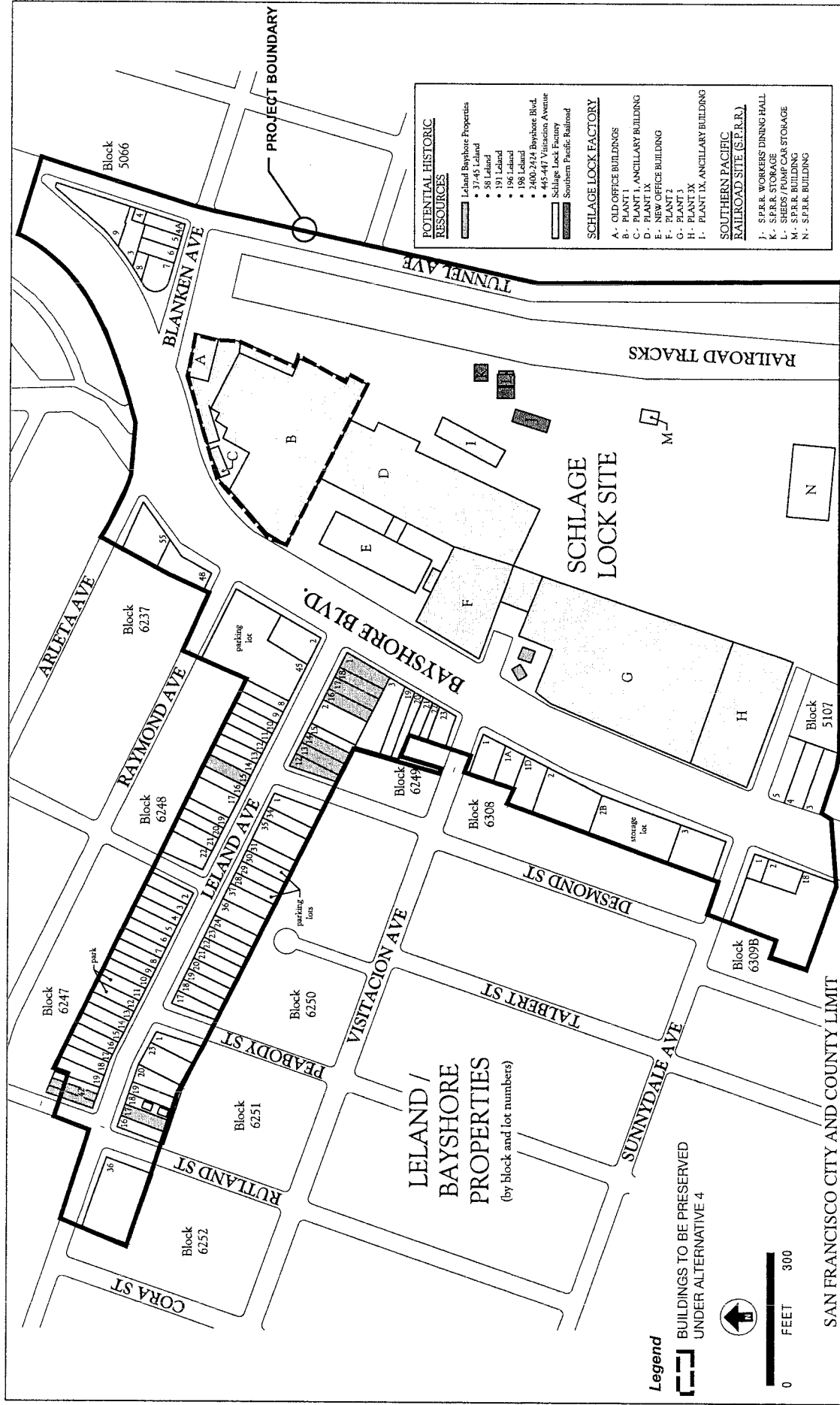
Figure 17.1 identifies the Plant 1 buildings. As suggested by the LPAB, this alternative would preserve and re-use the Sawtooth Building and Ancillary Building as additional community space adjacent to the proposed Old Office Building community center.¹ This alternative would result in roughly 200 (13 percent) fewer net residential units compared to the proposed Project.

- **Alternative 5: No Rezoning on Bayshore Boulevard in Redevelopment Zone 2.** This alternative would implement the proposed redevelopment program as described in the draft Redevelopment Plan and Design for Development, *except the west side of Bayshore Boulevard in Redevelopment Zone 2 would not be rezoned.* The Planning Code designation for these properties would remain “NC-3” Neighborhood Commercial and not be changed to “NC-T3” Neighborhood Commercial Transit. In order to enhance future ground-floor retail space, the building height limit would be increased from 40 feet to 45 feet, but not to the Project-proposed 55 feet, along this portion of Bayshore Boulevard. The result would be approximately 90 fewer net residential units in the Project Area. All other proposed development under the redevelopment program would remain as described in chapter 3 (Project Description) of this EIR.
- **Alternative 6: Planning Code Changes But No Redevelopment Plan.** This alternative would implement the Design for Development and associated General Plan amendments and Planning Code changes described in EIR chapter 3, but no Visitacion Valley Redevelopment Plan would be adopted. The Redevelopment Agency would not participate in the Project and would not implement the following proposed redevelopment actions in the Project Area: (1) housing improvement actions, including facilitation of affordable housing units and programs; (2) business revitalization actions, including promotion of existing businesses, attraction of new businesses, and assistance to the private sector (e.g., financing of insurance premiums); and (3) blight elimination actions, including acquisition and/or demolition of blighted properties, rehabilitation of existing structures and improvements, disposal (sale, lease, etc.) of properties to public or private entities, and clean-up of existing hazardous materials.

Because no redevelopment actions would be implemented and all future development and improvements would be undertaken by the private sector alone, this alternative assumes that the Project-facilitated growth described in this EIR (see chapter 3, Project Description) would not occur at an accelerated rate--i.e., would not be completed by the year 2025, but rather would occur at a slower rate, with build-out reached at a later, unspecified time.

For comparison with the proposed Project, it is assumed that, by the year 2025, this alternative would result in approximately 75 percent of the net new residential units and new retail square footage anticipated under the redevelopment program (1,190 vs. 1,585 residential units, and 98,625 vs. 131,500 square feet of retail space). Also, considering that the Redevelopment Agency intends to be the primary catalyst for creating a community center in the vacant "Old Schlage Administration Building" (15,000 square feet), Alternative 6 assumes that this particular project component would not be implemented.

¹Sarah Dennis, San Francisco Planning Department, Citywide Policy; written communication, September 11, 2007.



SOURCE: Carey & Co., Inc.

Figure 17.1

ALTERNATIVE 4: PRESERVATION AND RE-USE OF SCHLAGE LOCK PLANT 1 BUILDINGS

Table 17.1 summarizes the estimated net new development anticipated in the Project Area under each of the six identified alternatives in comparison to the proposed Project.

Alternatives Evaluation Methodology: In the sections that follow, the six Project alternatives are compared to the proposed Project and to each other for each of the environmental topics addressed in this EIR (see chapters 4 through 15) evaluated in this EIR.

CEQA Guidelines section 15126.6(d) states, "A matrix displaying the major characteristics may be used to summarize the comparison [of alternatives]." Accordingly, Table 17.1 above and Table 17.2 (Alternatives Comparison: Summary Overview) compare the key Project description characteristics of the six identified alternatives versus the proposed Project. Table 17.2 provides a summary of the various impact conclusions for each alternative, leading to selection of the "environmentally superior" alternative, as called for under CEQA Guidelines section 15126.6(e)(2).

The comparative summary evaluation information in Table 17.2 is further discussed in sections 17.1 through 17.6 which follow. These sections provide a narrative comparison of each of the six identified alternatives, including the principal characteristics and comparative mitigating and adverse effects of each in comparison to the proposed Project. As required by CEQA, section 17.7 identifies and explains the "environmentally superior" alternative.

Table 17.1
SUMMARY OF POTENTIAL NET NEW DEVELOPMENT UNDER THE PROJECT
ALTERNATIVES VS. THE PROPOSED PROJECT

	<u>Residential (units)</u>	<u>Retail (s.f.)</u>	<u>Other Commercial (s.f.)¹</u>	<u>Cultural/Instit./ Educ. (s.f.)²</u>
Proposed Project	1,585	131,500	(39,377) ³	25,000
Alternative:				
1. No Project--Expected Growth	8	1,200	5,908	8,000
2. Reduced Housing in Redevelopment Zone 1	735	131,500	(39,377)	25,000
3. Stand-Alone Grocery Store/Retail	1,285	131,500	(39,377)	25,000
4. Add'l Bldg. Preserv. and Re-use	1,385	131,500	(39,377)	214,550
5. No Rezoning on Bayshore in Redevelopment Zone 2	1,495	131,500	(39,377)	25,000
6. No Redevelopment Plan	1,190	98,625	(39,377)	10,000

SOURCE: San Francisco Redevelopment Agency, San Francisco Planning Department, Wagstaff and Associates; January and May, 2008.

¹ "Other Commercial" includes medical/dental office facilities; offices; and production, distribution, and repair uses (including auto-related).

² "Cultural/Institutional/Educational" includes community centers and libraries.

³ Projected reduction in "Other Commercial" floor area reflects Project intent to facilitate a transition in Project Area commercial use from general commercial to neighborhood-serving retail.

Table 17.2

ALTERNATIVES COMPARISON TO PROPOSED PROJECT: SUMMARY OVERVIEW

Alternatives		Alternative 1: No Project--Expected Growth	Alternative 2: Reduced Housing in Redevelopment Zone 1	Alternative 3: Stand-Alone Grocery Store/Retail	Alternative 4: Additional Bldg. Preserv. and Re-use	Alternative 5: No Rezoning on Bayshore in Redevelopment Zone 2	Alternative 6: No Redevelopment Plan
(a) <i>Consistency With Local and Regional Plans</i>	Impact	Substantially consistent--minimal fair share of reg'l. housing needs, minimally enhanced neighborhood retail.	Substantially consistent.	Substantially consistent.	Substantially consistent.	Substantially consistent.	Substantially consistent.
	(b) <i>Land Use</i>	No potentially significant environmental impacts, and minimal Project Area improvements.	Fewer beneficial effects.	Fewer beneficial effects.	Similar beneficial effects.	Fewer beneficial effects.	Fewer beneficial effects.
(c) <i>Population and Housing</i>	Impact	Reduced housing benefits. Minimal new housing in Project Area.	Significant but reduced housing benefits.	Significant but slightly reduced housing benefits.	Significant but slightly reduced housing benefits.	Significant but slightly reduced housing benefits.	Substantially reduced housing benefits.
	(d) <i>Aesthetics</i>	Reduced, but still potentially significant, impacts. All mitigable.	Reduced, but still potentially significant, environmental impacts. All mitigable.	Reduced, but still potentially significant, environmental impacts. All mitigable.	Reduced, but still potentially significant, environmental impacts. All mitigable.	Reduced, but still potentially significant, environmental impacts. All mitigable.	Reduced, but still potentially significant, impacts. All mitigable.
(e) <i>Transportation and Circulation</i>	Impact	No potentially significant environmental impacts, and no pedestrian improvements.	Substantially reduced, but still potentially significant, impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, impacts. Similar unavoidable impacts.	Similar potentially significant environmental impacts. Similar significant unavoidable impacts.	Reduced, but still potentially significant, impacts. Similar unavoidable impacts.	Reduced, but still potentially significant, impacts. Similar unavoidable impacts.
	(f) <i>Air Quality</i>	Reduced, but still potentially significant, impacts. All mitigable. No air quality benefits of high-density mixed use.	Substantially reduced, but still potentially significant, impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.	Similar potentially significant environmental impacts. Similar significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts.

17. Alternatives to the Proposed Project

Table 17.2 (continued)

ALTERNATIVES COMPARISON TO PROPOSED PROJECT: SUMMARY OVERVIEW

Alternatives		Alternative 1: No Project--Expected Growth	Alternative 2: Reduced Housing in Redevelopment Zone 1	Alternative 3: Stand-Alone Grocery Store/Retail	Alternative 4: Additional Bldg. Preserv. and Re-use	Alternative 5: No Rezoning on Bayside in Redevelopment Zone 2	Alternative 6: No Redevelopment Plan
(g) Cultural and Historical Resources	Impact	Similar potentially significant environmental impacts. Potentially significant unavoidable impacts remain. No rehab. of Old Office Bldg.	Similar potentially significant environmental impacts. Potentially remaining significant unavoidable impacts.	Similar potentially significant environmental impacts. Potentially remaining significant unavoidable impacts.	Reduced, but still potentially significant impacts. Potentially remaining significant unavoidable impacts.	Similar potentially significant environmental impacts. Potentially remaining significant unavoidable impacts.	Increased environmental impacts. Potentially significant unavoidable impacts remain.
(h) Hazards and Hazardous Materials	Impact	Current remediation would continue. No significant environmental impacts.	Current remediation would continue. No significant environmental impacts.	Current remediation would continue. No significant environmental impacts.	Current remediation would continue. No significant environmental impacts.	Current remediation would continue. No significant environmental impacts.	Current remediation would continue. No significant environmental impacts.
(i) Hydrology and Water Quality	Impact	Reduced, but still potentially significant environmental impacts. All mitigable.	Similar potentially significant environmental impacts. All mitigable.	Similar potentially significant environmental impacts. All mitigable.	Similar potentially significant environmental impacts. All mitigable.	Similar potentially significant environmental impacts. All mitigable.	Similar potentially significant environmental impacts. All mitigable.
(j) Noise	Impact	Reduced, but still potentially significant impacts. All mitigable.	Reduced, but still potentially significant impacts. All mitigable.	Reduced, but still potentially significant impacts. All mitigable.	Reduced, but still potentially significant impacts. All mitigable.	Reduced, but still potentially significant impacts. All mitigable.	Reduced, but still potentially significant impacts. All mitigable.
(k) Public Services	Impact	No potentially significant environmental impacts, but no park/public space improvements.	No potentially significant environmental impacts.	No potentially significant environmental impacts.	No potentially significant environmental impacts.	No potentially significant environmental impacts.	No potentially significant environmental impacts.
(l) Utilities and Service Systems	Impact	No potentially significant environmental impacts, but no LEED benefits.	Reduced, but still potentially significant impacts. All mitigable. Reduced LEED benefits.	Reduced, but still potentially significant impacts. All mitigable. Reduced LEED benefits.	Similar potentially significant impacts. All mitigable. Similar LEED benefits.	Similar potentially significant impacts. All mitigable. Similar LEED benefits.	Reduced, but still potentially significant impacts. All mitigable. Reduced LEED benefits.
(m) Attainment of Project Goals and Objectives	Impact	No attainment.	Partial attainment.	Partial attainment.	Attainment.	Partial attainment.	Partial attainment.

SOURCE: Wagstaff and Associates

Table 17.3

TRIP GENERATION COMPARISON--PROJECT VS. PROJECT ALTERNATIVES

Alternative	New Trips	
	Daily	PM Peak Hour
Proposed Project		
Residential	15,850	2,742
Retail	19,725	1,775
Other Commercial	(713)	(61)
Cultural/Instit./Educ.	1,425	150
Total Net New Trips	36,287	4,606
Alternative 1: No Project--Expected Growth		
Residential	80	14
Retail	180	16
Other Commercial	107	9
Cultural/Instit./Educ.	456	48
Total Net New Trips	823	87
Alternative 2: Reduced Housing in Redevelopment Zone 1		
Residential	7,350	1,272
Retail	19,725	1,775
Other Commercial	(713)	(61)
Cultural/Instit./Educ.	1,425	150
Total Net New Trips	27,787	3,136
Alternative 3: Stand-Alone Grocery Store/Retail		
Residential	12,850	2,223
Retail	19,725	1,775
Other Commercial	(713)	(61)
Cultural/Instit./Educ.	1,425	150
Total Net New Trips	33,287	4,087
Alternative 4: Add'l. Preserv. and Re-use		
Residential	13,850	2,396
Retail	19,725	1,775
Other Commercial	(713)	(61)
Cultural/Instit./Educ.	12,229	1,284
Total Net New Trips	45,091	5,394
Alternative 5: No Rezoning on Bayshore Boulevard in Redevelopment Zone 2		
Residential	14,950	2,586
Retail	19,725	1,775
Other Commercial	(713)	(61)
Cultural/Instit./Educ.	1,425	150
Total Net New Trips	35,387	4,450
Alternative 6: No Redevelopment Plan		
Residential	11,900	2,059
Retail	14,794	1,331
Other Commercial	(713)	(61)
Cultural/Instit./Educ.	570	60
Total Net New Trips	26,551	3,389

SOURCE: *San Francisco Transportation Analysis Guidelines*, Table C-1: Trip Generation Rates & Employee Densities for Typical Land Uses, October 2002.

Note: The trip generation rates used for the alternatives comparison are less precise than those used for the detailed project-specific traffic analysis described in chapter 8 (Transportation and Circulation) of this EIR. It should be noted that, with no proposed detailed mix of recreational uses or interior building designs to accommodate such uses available at this highly preliminary stage, the estimated recreational traffic generation for this alternative has been based on a conservative factor (57.0 daily trips per 1,000 gross square feet), consistent with the conservative analyses required by CEQA; the actual recreational traffic generation for this alternative might be considerably lower.

17.1 ALTERNATIVE 1: NO PROJECT--EXPECTED GROWTH WITHOUT THE PROJECT

17.1.1 Principal Characteristics

This alternative is based on the San Francisco Planning Department's Growth Allocation Data--Option C, which reflects net new development anticipated in the Project Area *without implementation of the proposed redevelopment program and Design for Development*. No Redevelopment Plan, Design for Development, or associated General Plan amendments or Planning Code changes described in EIR chapter 3 (Project Description) would be adopted. The quantitative data for this alternative was provided by the San Francisco Redevelopment Agency in October 2006. Compared to the proposed Project, this alternative would result in approximately 1,577 fewer net residential units, 130,300 fewer square feet of net retail space, 17,000 fewer square feet of net cultural space, and 45,280 *more* square feet of other net commercial space.

The No Project--Expected Growth Without the Project alternative is consistent with CEQA Guidelines section 15126.6(e)(1), which states, in part, "The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." Section 15126.6(e)(2) explains, in part, "The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published...as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." In addition, CEQA Guidelines section 15126.6(e)(3)(C) concludes, "[T]he [no project] analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing environment."

For this EIR, the "existing conditions" referred to in the CEQA Guidelines are the "Setting" sections of each environmental topic chapter (5.1--Land Use Setting, 8.1--Transportation and Circulation Setting, etc.). These "Setting" sections are hereby incorporated into the No Project alternative as the description of existing environmental conditions. However, pursuant to CEQA Guidelines section 15126.6(e)(3)(C) quoted above, the No Project--Expected Growth Without the Project alternative does not create "a set of artificial assumptions" in order to unrealistically maintain the Project Area "frozen in time." Pursuant to CEQA Guidelines section 15126.6(e)(2), the No Project alternative in this EIR focuses on "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

17.1.2 Alternative 1 Evaluation: Comparative Adverse and Mitigating Effects

(a) Consistency With Local and Regional Plans. The *Visitacion Valley Schlage Lock Strategic Design for Development* and other General Plan amendment and Planning Code changes proposed as part of the redevelopment program would not be implemented under the No Project--Expected Growth Without the Project alternative. This alternative would remain consistent with existing local land use plans and controls, including the San Francisco General Plan and San Francisco Planning Code. However, because only eight new residential units would be anticipated under this alternative (see Table 17.1), the alternative would not be consistent with the City's *Priority Policies* and *Housing Element* policies related to enhancement of neighborhood-serving retail uses, enhancement of affordable housing, and encouragement of higher residential density and new affordable housing in appropriate locations (as described in

EIR sections 4.1.1, Priority Policies; 6.2.2, General Plan Housing Element; and 6.3.2, Project General Plan Consistency). Similarly, this alternative would contribute minimally to San Francisco's fair share of regional housing needs as determined by the Association of Bay Area Governments (ABAG) (see EIR section 6.2.1).

(b) Land Use. The No Project--Expected Growth alternative would not result in any potentially significant adverse land use compatibility impacts. The *beneficial land use compatibility effects* of Design for Development and Redevelopment Plan implementation (e.g., neighborhood revitalization, improved pedestrian-oriented environment and transit access) would also not occur.

(c) Population and Housing. Compared to the proposed Project, this alternative would not have the *beneficial effect* associated with facilitating increased housing opportunity within the Visitacion Valley neighborhood; new residential development near commercial uses, transit, and other services; and an improved citywide balance between employed residents and jobs. Only eight new residential units would be anticipated under this alternative.

(d) Aesthetics. Due primarily to the substantially reduced potential for future residential and retail development at intensities and heights greater than currently permitted, this alternative would result in reduced potentials for adverse impacts on aesthetics and visual resources. However, the beneficial visual effects associated with development under the redevelopment program would not be realized.

(e) Transportation and Circulation. The trip generation characteristics of each alternative in comparison to the proposed Project are identified in Table 17.3. Due to the comparatively minimal trip increment associated with this alternative, it would not result in any significant transportation and circulation impacts. However, this alternative would not advance the Design for Development's proposals for provision of high-density, mixed land use patterns near the Project Area's excellent local and regional transit provisions.

(f) Air Quality. Compared to the proposed Project, this alternative would result in reduced but still potentially significant air quality impacts related to construction-period emissions; due to the substantially reduced residential and retail-related net vehicular trip generation, no significant long-term regional emission impacts would result. The construction emissions could still be reduced to a less-than-significant level with implementation of the mitigation described in chapter 9 of this EIR. However, this alternative would not include the Design for Development's proposals for high-density, mixed land use patterns that promote walking, transit use, and shorter commutes.

(g) Cultural and Historical Resources. Similar to the proposed Project, this alternative could result in potentially significant unavoidable impacts on cultural and historic resources. Also, the historic Old Office Building would not be rehabilitated under this alternative. Based on CEQA and recent case law, individual future developments affecting historic resources may require additional CEQA review.

(h) Hazards and Hazardous Materials. Similar to the proposed Project and other alternatives, no potentially significant impacts from hazards or hazardous materials would result from implementation of the No Project--Expected Growth alternative.

(i) Hydrology and Water Quality. Based primarily on the reduced number of new vehicle trips and resultant deposition of vehicle-generated urban pollutants, this alternative would result in reduced *water quality* impacts, all of which could be reduced to less-than-significant levels with implementation of the mitigation measures in chapter 12 (Hydrology and Water Quality) of this EIR. No potentially significant *drainage* impacts would result from either this alternative or the proposed Project.

(j) Noise. Compared to the proposed Project, this alternative would result in reduced, but still significant, demolition/construction-period noise impacts, as well as potential exposure of new noise-sensitive development (e.g., residences) to noise levels exceeding City noise standards. These noise impacts would be reduced to less-than-significant levels by implementing the measures described in chapter 13 of this EIR.

(k) Public Services. Similar to the proposed Project, no significant public service impacts would occur. However, this alternative does not include the Project-proposed improvements to the Project Area public space network.

(l) Utilities and Service Systems. This alternative would not result in a significant solid waste diversion impact. Because the Design for Development would not be implemented under this alternative, the *benefits* of the Redevelopment Zone 1 development as a LEED Neighborhood would not be realized.

(m) Attainment of Project Goals and Objectives. This alternative would not attain the goals and objectives identified in section 3.4 (Project Objectives) and subsection 3.6.2 (Redevelopment Plan Goals and Objectives) of this EIR. The current General Plan and associated existing Planning Code provisions do not include the detailed and coordinated strategies, improvements, and contemporary development regulations proposed by the Design for Development and overall redevelopment program.

17.2 ALTERNATIVE 2: REDUCED HOUSING DEVELOPMENT IN REDEVELOPMENT ZONE 1

17.2.1 Principal Characteristics

Primarily as a means of reducing peak-period vehicular trip generation, this alternative would include only 400 residential units and a stand-alone grocery store and retail center in Redevelopment Zone 1. As shown in Table 17.1, the result would be approximately 850 fewer net residential units. All other proposed development under the redevelopment program would remain as described in chapter 3 (Project Description) of this EIR.

17.2.2 Alternative 2 Evaluation: Comparative Adverse and Mitigating Effects

(a) Project Consistency With Local and Regional Plans. Similar to the proposed Project, this "reduced residential" alternative would be substantially consistent with local and regional plans, including the San Francisco General Plan, San Francisco Planning Code, ABAG Land Use Policy Framework, ABAG housing and population projections, and BAAQMD air quality plans. However, the degree of increased housing opportunity would be substantially reduced.

(b) Land Use. The Redevelopment Plan goals and objectives stipulate that Project Area housing and mixed use (retail/housing) development be conveniently located near public transportation, shopping, employment, recreation, and other community facilities. Chapter 5 of this EIR indicates that implementation of the Project as proposed, including the Design for Development and Redevelopment Plan, would result in overall *beneficial land use effects* associated with these local facilities. The fewer residential units and reduced mixed use relationships anticipated under this alternative would reduce these locational benefits.

(c) Population and Housing. This alternative would have a *reduced beneficial effect* in increasing Visitacion Valley housing opportunities and assisting San Francisco in achieving a better citywide balance between employed residents and jobs, more housing concentration near commercial use, transit, and other services, and an associated decrease in the current in-commuting trend.

(d) Aesthetics. Compared to the proposed Project, the anticipated new development at densities and heights greater than currently exist in the Project Area would occur at a similar, but reduced degree, resulting in reduced, but still potentially significant, aesthetic and visual resource impacts, all of which could still be reduced to less-than-significant levels by implementing the measures described in chapter 7 of this EIR.

(e) Transportation and Circulation. The comparative trip generation characteristics of each alternative are identified in Table 17.3. Compared to the proposed Project, this reduced residential alternative would result in reduced, but still significant unavoidable, transportation and circulation impacts, primarily due to the net increase of approximately 27,787 daily vehicular trips and 3,136 PM peak-hour trips (approximately 23 percent fewer daily trips than the proposed Project). The Design for Development proposed high-density, mixed land use patterns that promote walking, transit use, and shorter commutes would be less effective (less jobs/housing balance) under this alternative.

(f) Air Quality. Compared to the proposed Project, this alternative would result in reduced, but still potentially significant, air quality impacts related to construction-period emissions and long-term regional emissions increases. The construction emissions could still be reduced to a less-than-significant level with implementation of the mitigation described in chapter 9 of this EIR. Long-term emissions, although reduced by more than 20 percent, would remain significant and unavoidable even with implementation of EIR-identified mitigation. The Design for Development proposed high-density, mixed land use patterns that promote walking, transit use, and shorter commutes, which would help reduce long-term regional air emissions would be less effective (less jobs/housing balance) under this alternative.

(g) Cultural and Historical Resources. Similar to the proposed Project, the reduced residential alternative could still result in unavoidable significant impacts on cultural and historic resources. The Schlage Lock Old Office Building would still be rehabilitated as a community center.

(h) Hazards and Hazardous Materials. Similar to the proposed Project and other alternatives, the current ongoing remediation program would continue and no potentially significant hazards or hazardous materials impacts would result from implementation of this alternative.

(i) Hydrology and Water Quality. Based primarily on the reduced number of new vehicle trips and resultant deposition of vehicle-generated urban pollutants, this alternative would result in

reduced *water quality* impacts. No potentially significant *drainage* impacts would result from either this alternative or the proposed Project.

(j) Noise. Compared to the proposed Project, the reduced residential alternative would result in reduced, but still potentially significant, demolition/construction-period noise impacts, as well as potential exposure of new noise-sensitive development (e.g., residences) to noise and vibration levels exceeding City noise standards. These noise impacts would be reduced to less-than-significant levels by implementing the measures described in chapter 13 of this EIR.

(k) Public Services. Similar to the proposed Project, this alternative would not result in any significant impacts on public services.

(l) Utilities and Service Systems. Similar to the proposed Project, the higher building heights anticipated under this alternative could result in a significant solid waste diversion impact, which could be reduced to a less-than-significant level by implementing the mitigation measure described in chapter 15 of this EIR.

(m) Attainment of Project Goals and Objectives. This alternative would be less effective in attaining the goals and objectives of the Project as identified in section 3.4 (Project Objectives) and subsection 3.6.2 (Redevelopment Plan Goals and Objectives) of this EIR.

17.3 STAND-ALONE GROCERY STORE/RETAIL ALONG BAYSHORE BOULEVARD SOUTH OF VISITACION AVENUE

17.3.1 Principal Characteristics

Similar to Alternative 2, Alternative 3 is intended primarily to reduce peak-period vehicular trip generation and would include a stand-alone grocery store and retail center of approximately 70,000 square feet in Redevelopment Zone 1 along Bayshore Boulevard south of Visitacion Avenue. Different from Alternative 2, this alternative would provide approximately 950 (instead of 400) residential units in Redevelopment Zone 1. *Unlike the proposed Project, no housing would be provided on the upper floors of the grocery store and retail center.* As shown in Table 17.1, the result would be approximately 300 fewer net residential units. All other proposed development under the redevelopment program would remain as described in chapter 3 (Project Description) of this EIR.

17.3.2 Alternative 3 Evaluation: Comparative Adverse and Mitigating Effects

(a) Project Consistency With Local and Regional Plans. Similar to the proposed Project, this "stand-alone grocery store/retail" alternative would be substantially consistent with local and regional plans, including the San Francisco General Plan, San Francisco Planning Code, ABAG Land Use Policy Framework, ABAG housing and population projections, and BAAQMD air quality plans. However, the degree of increased housing opportunity would be reduced.

(b) Land Use. The Redevelopment Plan goals and objectives stipulate that Project Area housing and mixed use (retail/housing) development be conveniently located near public transportation, shopping, employment, recreation, and other community facilities. Chapter 5 of this EIR indicates that implementation of the Project as proposed, including the Design for Development and Redevelopment Plan, would result in overall *beneficial land use effects*

associated with these local facilities. The fewer residential units and reduced mixed use relationships anticipated under this alternative would reduce these locational benefits.

(c) Population and Housing. This alternative would have a *slightly reduced beneficial effect* in increasing Visitacion Valley housing opportunities and assisting San Francisco in achieving a better citywide balance between employed residents and jobs, more housing concentration near commercial use, transit, and other services, and an associated decrease in the current in-commuting trend.

(d) Aesthetics. Compared to the proposed Project, the anticipated new development at densities and heights greater than currently exist in the Project Area would occur at a similar, but reduced degree, resulting in reduced, but still potentially significant, aesthetic and visual resource impacts, all of which could still be reduced to less-than-significant levels by implementing the measures described in chapter 7 of this EIR.

(e) Transportation and Circulation. The comparative trip generation characteristics of each alternative are identified in Table 17.3. Compared to the proposed Project, this stand-alone grocery store/retail alternative would result in reduced, but still significant unavoidable, transportation and circulation impacts, primarily due to the net increase of approximately 33,287 daily vehicular trips and 4,087 PM peak-hour trips (approximately eight percent fewer daily trips than the proposed Project). The Design for Development proposed high-density, mixed land use patterns that promote walking, transit use, and shorter commutes would be less effective (less jobs/housing balance) under this alternative.

(f) Air Quality. Compared to the proposed Project, this alternative would result in reduced, but still potentially significant, air quality impacts related to construction-period emissions and long-term regional emissions increases. The construction emissions could still be reduced to a less-than-significant level with implementation of the mitigation described in chapter 9 of this EIR. Long-term emissions, although reduced by approximately eight percent, would remain significant and unavoidable even with implementation of EIR-identified mitigation. The Design for Development proposed high-density, mixed land use patterns that promote walking, transit use, and shorter commutes, which would help reduce long-term regional air emissions would be less effective (less jobs/housing balance) under this alternative.

(g) Cultural and Historical Resources. Similar to the proposed Project, the stand-alone grocery store/retail alternative could still result in unavoidable significant impacts on cultural and historic resources. The Schlage Lock Old Office Building would still be rehabilitated as a community center.

(h) Hazards and Hazardous Materials. Similar to the proposed Project and other alternatives, the current ongoing remediation program would continue and no potentially significant hazards or hazardous materials impacts would result from implementation of this alternative.

(i) Hydrology and Water Quality. Based primarily on the reduced number of new vehicle trips and resultant deposition of vehicle-generated urban pollutants, this alternative would result in reduced *water quality* impacts. No potentially significant *drainage* impacts would result from either this alternative or the proposed Project.

(j) Noise. Compared to the proposed Project, the stand-alone grocery store/retail alternative would result in reduced, but still potentially significant, demolition/construction-period noise

impacts, as well as potential exposure of new noise-sensitive development (e.g., residences) to noise and vibration levels exceeding City noise standards. These noise impacts would be reduced to less-than-significant levels by implementing the measures described in chapter 13 of this EIR.

(k) Public Services. Similar to the proposed Project, this alternative would not result in any significant public service impacts.

(l) Utilities and Service Systems. Similar to the proposed Project, the higher building heights anticipated under this alternative could result in a significant solid waste diversion impact, which could be reduced to a less-than-significant level by implementing the mitigation measure described in chapter 15 of this EIR.

(m) Attainment of Project Goals and Objectives. This alternative would be less effective in attaining the goals and objectives of the Project as identified in section 3.4 (Project Objectives) and subsection 3.6.2 (Redevelopment Plan Goals and Objectives) of this EIR.

17.4 ALTERNATIVE 4: PRESERVATION AND RE-USE OF ALL SCHLAGE LOCK PLANT 1 BUILDINGS

17.4.1 Principal Characteristics

Consistent with a suggestion of the San Francisco Landmarks Preservation Advisory Board (LPAB), this alternative would preserve and re-use the Schlage Lock Plant 1 buildings, known as Building B (Sawtooth Building, 188,050 square feet) and Building C (Ancillary Building, approximately 1,500 square feet), both of which are considered “contributing” to a potential “Schlage Lock Factory Historic Site” (see detailed descriptions in EIR chapter 10, Cultural and Historic Resources). The buildings are located directly south of the Old Office Building (Building A), which the Project already proposes for preservation and re-use as a community center.

Figure 17.1 identifies the Plant 1 buildings. As suggested by the LPAB, this alternative would re-use the Sawtooth Building and Ancillary Building as additional community space adjacent to the proposed Old Office Building community center.¹ Based on comparison of Figure 17.1 with Project plans (see chapter 3, Project Description), it is estimated that this alternative would result in roughly 200 fewer net residential units compared to the proposed Project.

17.4.2 Alternative 4 Evaluation: Comparative Adverse and Mitigating Effects

(a) Project Consistency With Local and Regional Plans. The Preservation and Re-use alternative would be substantially consistent with local and regional plans, including the San Francisco General Plan, San Francisco Planning Code, ABAG Land Use Policy Framework, ABAG housing and population projections, and BAAQMD air quality management plans.

(b) Land Use. Compared to the proposed Project, the Preservation and Re-use alternative would result in similar beneficial land use impacts. Implementation of Alternative 4 would result in overall *beneficial land use effects*. Although fewer residential units would be developed under

¹Sarah Dennis, San Francisco Planning Department, Citywide Policy; written communication, September 11, 2007.

this alternative, more recreational benefits (an expanded community center) would be conveniently available to the surrounding area.

(c) Population and Housing. In comparison to the proposed Project, the reduced residential total under this alternative would have a reduced *beneficial effect* in assisting San Francisco in achieving increased housing opportunity in the Visitacion Valley neighborhood, a better citywide balance between employed residents and jobs, more housing concentration near commercial uses, transit, and other services, and associated decreases in the current in-commuting trend.

(d) Aesthetics. Similar to the proposed Project, new development at densities and heights greater than currently existing in the Project Area would result in potentially significant, aesthetic and visual resource impacts, all of which would be reduced to less-than-significant levels by implementing the measures described in chapter 7 of this EIR.

(e) Transportation and Circulation. The comparative trip generation characteristics of each alternative are identified in Table 17.3. Compared to the proposed Project, the Preservation and Re-use alternative, with the added approximately 190,000 square-foot recreation center, would result in a greater net traffic increase (about 24 percent more daily trips) than the Proposed Project, and similar significant unavoidable transportation and circulation impacts. However, the proposed Project includes a more balanced mix of high-density, mixed land uses that would more effectively promote transit use and shorter commutes. It should be noted that, with no proposed detailed mix of recreational uses or interior building designs to accommodate such uses available at this highly preliminary stage, the estimated recreational traffic generation for this alternative has been based on a conservative factor (57.0 daily trips per 1,000 gross square feet), consistent with the conservative analyses required by CEQA; the actual recreational traffic generation for this alternative might be considerably lower.

(f) Air Quality. Compared to the proposed Project, this alternative would result in similar potentially significant, air quality impacts related to construction-period emissions and increased significant unavoidable impacts related to long-term regional emissions. Similar to the Project, the long-term emissions impacts would remain significant and unavoidable even with implementation of EIR-identified mitigation, primarily due to the net increase of daily vehicular trips.

(g) Cultural and Historical Resources. Compared to the proposed Project and other alternatives, the Preservation and Re-use alternative would result in fewer potentially significant impacts on cultural and historic resources because the alternative would rehabilitate and adaptively re-use Schlage Lock Plant 1 Buildings B and C (a total of approximately 190,000 square feet), both of which are considered "contributing" to a potential Schlage Lock Factory Historic Site (see details in EIR chapter 10). The buildings would be re-used as additional community space adjacent to the proposed Old Office Building community center.

(h) Hazards and Hazardous Materials. Similar to the proposed Project and other alternatives, the current ongoing remediation program would continue under this alternative and no potentially significant hazards or hazardous materials impacts would result. However, according to DTSC,¹ this alternative could impede hazardous materials remediation because the Schlage Lock Plant 1 buildings, which would be preserved under the alternative, could have

¹Barbara J. Cook, P.E., Chief, Northern California Coastal Cleanup Operations Branch, State Department of Toxic Substances Control (DTSC); written communication, April 11, 2008.

contaminated soils underneath them; any such soils would be more difficult to access and remediate.

(i) Hydrology and Water Quality. Based primarily on the *increased* number of new vehicle trips and resultant deposition of vehicle-generated urban pollutants, this alternative would result in increased *water quality* impacts, all of which could be reduced to less-than-significant levels with implementation of the mitigation measures in chapter 12 (Hydrology and Water Quality) of this EIR. No potentially significant *drainage* impacts would result from either this alternative or the proposed Project.

(j) Noise. Compared to the proposed Project, the Preservation and Re-use alternative would result in similar potentially significant, demolition/construction-period noise impacts, as well as potential exposure of new noise-sensitive development (e.g., residences) to noise and vibration levels exceeding City noise standards. These noise impacts would be reduced to less-than-significant levels by implementing the measures described in chapter 13 of this EIR.

(k) Public Services. Similar to the proposed Project, this alternative would not result in any significant public service impacts.

(l) Utilities and Service Systems. Similar to the proposed Project, this alternative could result in a potentially significant solid waste diversion impact associated with multi-story residential buildings, which could be reduced to a less-than-significant level by implementing the mitigation measure described in chapter 15 of this EIR.

(m) Attainment of Project Goals and Objectives. The Preservation and Re-use alternative would be slightly less effective in attaining the goals and objectives as identified in section 3.4. (Project Objectives) and subsection 3.6.2 (Redevelopment Plan Goals and Objectives) of this EIR.

17.5 ALTERNATIVE 5: NO REZONING ON BAYSHORE BOULEVARD IN REDEVELOPMENT ZONE 2

17.5.1 Principal Characteristics

This alternative would implement the proposed redevelopment program and Design for Development *except the west side of Bayshore Boulevard in Redevelopment Zone 2 would not be rezoned.* The Planning Code designation for these properties would remain “NC-3” Neighborhood Commercial and not be changed to “NC-T3” Neighborhood Commercial Transit. In order to enhance future ground-floor retail space, the building height limit would be increased from 40 feet to 45 feet, but not to the Project-proposed 55 feet, along this portion of Bayshore Boulevard. As shown in Table 17.1, the result would be approximately 90 fewer net residential units. All other proposed development under the redevelopment program would remain as described in chapter 3 (Project Description) of this EIR.

17.5.2 Alternative 5 Evaluation: Comparative Adverse and Mitigating Effects

(a) Project Consistency With Local and Regional Plans. Similar to the proposed Project, this “reduced residential” alternative would be substantially consistent with local and regional plans, including the San Francisco General Plan, San Francisco Planning Code, ABAG Land Use

Policy Framework, ABAG housing and population projections, and BAAQMD air quality plans. However, the degree of increased housing opportunity would be reduced.

(b) Land Use. The Redevelopment Plan goals and objectives stipulate that Project Area housing and mixed use (retail/housing) development be conveniently located near public transportation, shopping, employment, recreation, and other community facilities. Chapter 5 of this EIR indicates that implementation of the Project as proposed, including the Design for Development and Redevelopment Plan, would result in overall *beneficial land use effects* associated with these local facilities. The fewer residential units anticipated under this alternative would reduce these locational benefits.

(c) Population and Housing. This alternative would have a *reduced beneficial effect* in increasing Visitation Valley housing opportunities and assisting San Francisco in achieving a better citywide balance between employed residents and jobs, more housing concentration near commercial use, transit, and other services, and an associated decrease in the current in-commuting trend.

(d) Aesthetics. Compared to the proposed Project, the anticipated new development at densities and heights greater than currently exist in the Project Area would occur at a similar, but reduced degree, resulting in reduced, but still potentially significant, aesthetic and visual resource impacts, all of which could still be reduced to less-than-significant levels by implementing the measures described in chapter 7 of this EIR.

(e) Transportation and Circulation. The comparative trip generation characteristics of each alternative are identified in Table 17.3. Compared to the proposed Project, this reduced residential alternative would result in reduced, but still significant unavoidable, transportation and circulation impacts, primarily due to the net increase of approximately 35,398 daily vehicular trips and 4,450 PM peak-hour trips (approximately 3 percent fewer daily trips than the proposed Project). The Design for Development proposed high-density, mixed land use patterns that promote walking, transit use, and shorter commutes would be less effective (less jobs/housing balance) under this alternative.

(f) Air Quality. Compared to the proposed Project, this alternative would result in reduced, but still potentially significant, air quality impacts related to construction-period emissions and long-term regional emissions increases. The construction emissions could still be reduced to a less-than-significant level with implementation of the mitigation described in chapter 9 of this EIR. Long-term emissions would remain significant and unavoidable even with implementation of EIR-identified mitigation. The Design for Development proposed high-density, mixed land use patterns that promote walking, transit use, and shorter commutes, which would help reduce long-term regional air emissions would be less effective (less jobs/housing balance) under this alternative.

(g) Cultural and Historical Resources. Similar to the proposed Project, the reduced residential alternative could still result in unavoidable significant impacts on cultural and historic resources. The Schlage Lock Old Office Building would still be rehabilitated as a community center.

(h) Hazards and Hazardous Materials. Similar to the proposed Project and other alternatives, the current ongoing remediation program would continue and no potentially significant hazards or hazardous materials impacts would result from implementation of this alternative.

(i) Hydrology and Water Quality. Based primarily on the reduced number of new vehicle trips and resultant deposition of vehicle-generated urban pollutants, this alternative would result in reduced *water quality* impacts. No potentially significant *drainage* impacts would result from either this alternative or the proposed Project.

(j) Noise. Compared to the proposed Project, this alternative would result in reduced, but still potentially significant, demolition/construction-period noise impacts, as well as potential exposure of new noise-sensitive development (e.g., residences) to noise and vibration levels exceeding City noise standards. These noise impacts would be reduced to less-than-significant levels by implementing the measures described in chapter 13 of this EIR.

(k) Public Services. Similar to the proposed Project, this alternative would not result in any significant impacts on public services.

(l) Utilities and Service Systems. Similar to the proposed Project, the higher building heights anticipated under this alternative could result in a significant solid waste diversion impact, which could be reduced to a less-than-significant level by implementing the mitigation measure described in chapter 15 of this EIR.

(m) Attainment of Project Goals and Objectives. This alternative would be less effective in attaining the goals and objectives of the Project as identified in section 3.4 (Project Objectives) and subsection 3.6.2 (Redevelopment Plan Goals and Objectives) of this EIR.

17.6 ALTERNATIVE 6: PLANNING CODE CHANGES BUT NO REDEVELOPMENT PLAN

17.6.1 Principal Characteristics

This alternative would implement the 2008 Design for Development and the Project-proposed General Plan amendments and Planning Code changes (described in EIR chapter 3), but no Visitacion Valley Redevelopment Plan would be adopted. The Redevelopment Agency would not participate in the Project and would therefore not carry out the following proposed redevelopment actions in the Project Area: (1) housing improvement actions, including facilitation of affordable housing units and programs; (2) business revitalization actions, including promotion of existing businesses, attraction of new businesses, and assistance to the private sector (e.g., financing of insurance premiums); and (3) blight elimination actions, including acquisition and/or demolition of blighted properties, rehabilitation of existing structures and improvements, disposal (sale, lease, etc.) of properties to public or private entities, and clean-up of existing hazardous materials.

Because no redevelopment actions would be implemented and all future development and improvements would be undertaken by the private sector alone, this alternative assumes that the Project-facilitated growth increment described in this EIR (see section 3.12, Project-Facilitated Growth Assumptions) would occur at a slower rate--i.e., would not be completed by the year 2025. Buildout would be reached at a later, unspecified time. For comparison with the proposed Project, it is assumed that, by the year 2025, this alternative would result in approximately 75 percent of the net new residential units and new retail square footage anticipated under the redevelopment program (i.e., 1,190 vs. 1,585 residential units, and 98,625 vs. 131,500 square feet of retail space). Also, considering that the Redevelopment Agency intends to be the primary catalyst for creating a community center in the vacant Old Office

Building (15,000 square feet), the alternative assumes that this particular project component would not be implemented.

17.6.2 Alternative 6 Evaluation: Comparative Adverse and Mitigating Effects

(a) Project Consistency With Local and Regional Plans. The No Redevelopment Plan alternative would be generally consistent with local and regional plans, including the San Francisco General Plan, San Francisco Planning Code, ABAG Land Use Policy Framework, ABAG housing and population projections, and BAAQMD air quality management plans, but would not as aggressively implement San Francisco General Plan housing and neighborhood revitalization goals.

(b) Land Use. Compared to the proposed Project, the No Redevelopment Plan alternative would result in a slower rate and/or reduced degree of beneficial land use impacts. Future buildout characteristics under the Design for Development would still improve Project Area land use relationships, but such improvements would not be facilitated by redevelopment.

(c) Population and Housing. Compared to the proposed Project, this alternative would have a reduced *beneficial effect* by 2025 in assisting San Francisco in achieving a better citywide balance between employed residents and jobs, more housing concentration near commercial uses, transit, and other services, and an associated decrease in current in-commuting trends.

(d) Aesthetics. Similar to the proposed Project, proposed new development at densities and heights greater than currently existing in the Project Area would result in potentially significant, aesthetic and visual resource impacts under this alternative, all of which would be reduced to less-than-significant levels by implementing the measures described in chapter 7 of this EIR.

(e) Transportation and Circulation. The comparative trip generation characteristics of each alternative are identified in Table 17.3. Compared to the proposed Project, the reduced rate of development under this alternative would result in reduced, but still significant unavoidable, year 2025 transportation and circulation impacts, primarily due to the net increase of approximately 26,551 daily vehicular trips and 3,389 PM peak-hour trips (about 27 percent fewer daily trips than the proposed Project). However, the Design for Development would still promote high-density, mixed land use patterns that encourage walking, transit use, and shorter commutes.

(f) Air Quality. Compared to the proposed Project, this alternative would result in reduced, but still potentially significant, year 2025 air quality impacts related to construction-period emissions and long-term regional emissions increases. These construction emission impacts would be reduced to a less-than-significant level with implementation of the mitigation described in chapter 9 of this EIR. Long-term emissions, although reduced, would remain significant and unavoidable even with implementation of EIR-identified mitigation, primarily due to the net increase of daily vehicular trips generated by this alternative (even though this alternative would generate approximately 27 percent fewer additional daily vehicular trips than would the proposed Project). The Design for Development component of the project would remain and would still promote high-density, mixed land use patterns that encourage walking, transit use, and shorter commutes, which would help reduce long-term regional air emissions, but not to a less-than-significant level.

(g) Cultural and Historical Resources. Compared to the proposed Project, this alternative would result in greater potentially significant impacts on cultural and historic resources because

the Schlage Lock Old Office Building would not be preserved and rehabilitated as a community center.

(h) Hazards and Hazardous Materials. Similar to the proposed Project and other alternatives, the existing ongoing remediation program would continue and no potentially significant hazards or hazardous materials impacts would result from implementation of this alternative.

(i) Hydrology and Water Quality. Based primarily on the reduced number of new vehicle trips by 2025 and resultant reduced deposition of vehicle-generated urban pollutants, this alternative would result in reduced, but still significant, potentials for *water quality* impacts. No potentially significant *drainage* impacts would result from either this alternative or the proposed Project.

(j) Noise. Compared to the proposed Project, the No Redevelopment Plan alternative would result in reduced, but still potentially significant, demolition/construction-period noise impacts, as well as potential exposure of new noise-sensitive development (e.g., residences) to noise and vibration levels exceeding City noise standards. These noise impacts could still be reduced to less-than-significant levels by implementing the measures described in chapter 13 of this EIR.

(k) Public Services. Similar to the proposed Project, this alternative would not result in any significant public service impacts. The Design for Development proposed improvements to the Project Area park and public space network, which would represent a *beneficial effect* of the proposed Project, could still occur under this alternative, but at a slower rate.

(l) Utilities and Service Systems. Similar to the proposed Project, this alternative could result in a significant solid waste diversion impact associated with multi-level residential buildings, which could still be reduced to a less-than-significant level by implementing the mitigation measure described in chapter 15 of this EIR.

(m) Attainment of Project Goals and Objectives. The No Redevelopment Plan alternative would be less effective in attaining the objectives described in section 3.4 (Project Objective) of this EIR, and substantially less effective in attaining the goals and objectives identified in subsection 3.6.2 (Redevelopment Plan Goals and Objectives) of this EIR. No redevelopment actions to help fulfill these goals and objectives would be implemented under this alternative.

17.7 CONCLUSIONS: ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Table 17.2 at the beginning of this chapter provides a consolidated, summary comparison of the environmental implications of the various identified project alternatives for all of the environmental issues considered in this EIR. When viewed together, Tables 17.1, 17.2, and 17.3 indicate that, of the various alternatives evaluated in this EIR other than the No Project--Expected Growth Without the Project alternative, **Alternative 2: Reduced Housing Development in Redevelopment Zone 1** would result in the least adverse combination of environmental impacts. This conclusion is based on the following information:

(1) The Reduced Housing Development in Redevelopment Zone 1 alternative would result in substantially reduced **quantitative impacts** in comparison to the Proposed Project and the

other alternatives (other than "No Project") (e.g., traffic generation, air pollution emissions, traffic noise) due to its reduced potential residential development (see Tables 17.1 and 17.3);

(2) The Reduced Housing Development in Redevelopment Zone 1 alternative would not result in any additional significant unavoidable environmental impacts compared to the other alternatives (Table 17.2);

(3) The Reduced Housing Development in Redevelopment Zone 1 alternative would be substantially consistent with local and regional plans (Table 17.3).

18. MITIGATION MONITORING AND REPORTING

This EIR chapter describes a recommended monitoring and reporting program for implementing mitigation measures identified in this EIR, and describes the relationships between monitoring needs and responsible monitoring agencies.

18.1 MONITORING AND REPORTING REQUIREMENTS

CEQA section 21081.6 of the Public Resources Code requires all public agencies to adopt reporting or monitoring programs when they approve projects subject to environmental impact reports or mitigated negative declarations.

A mitigation monitoring and reporting program (MMRP) would be required subsequent to certification of the Visitacion Valley Redevelopment Program EIR. Most of the environmental mitigation measures recommended in this EIR would be monitored through normal City and County of San Francisco Planning Code, subdivision, grading, site and design (architectural) review, building permit, and Design for Development and General Plan consistency procedures, as well as during associated plan check and field inspection procedures. To satisfy CEQA section 21081.6, a documented record of implementation will be necessary.

18.2 MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

While a specific MMRP should not be formulated unless and until this EIR is certified and a Project is approved, the general MMRP framework can be determined at this EIR stage.

The MMRP framework is attached as Table 18.1. For each mitigation measure, the table: (1) lists the mitigation measure; (2) specifies the party responsible for implementing the measure; (3) establishes a schedule for mitigation implementation; (4) assigns mitigation monitoring responsibility; and (5) establishes monitoring actions and a schedule for mitigation monitoring.

18.3 IMPLEMENTATION

While the MMRP generally outlines the actions, responsibilities, and schedule for mitigation monitoring, it does not attempt to specify the detailed procedures to be used to verify implementation (e.g., interactions between the Project applicant(s), San Francisco Redevelopment Agency, and City of San Francisco departments; use of private consultants; sign-off on plans; site inspections, etc.). Specific monitoring procedures are either contained in approval documents or will be developed at a later date, closer to the time the mitigation measures will actually be implemented.

Table 18.1

MITIGATION MONITORING CHECKLIST--VISITACION VALLEY REDEVELOPMENT PROGRAM

MITIGATION MEASURE	Responsibility for Mitigation¹	Mitigation Schedule²	Monitoring Responsibility³	Monitoring Actions/Schedule
TRANSPORTATION AND CIRCULATION				
Mitigation 8-1.				
Mitigation 8-2.				
Mitigation 8-3.				
AIR QUALITY				
Mitigation 9-1.				
Mitigation 9-2.				
CULTURAL AND HISTORICAL RESOURCES				
Mitigation 10-1.				
Mitigation 10-2.				
HYDROLOGY AND WATER QUALITY				
Mitigation 12-1.				
Mitigation 12-2.				
NOISE				
Mitigation 13-1.				
Mitigation 13-2.				
Mitigation 13-3.				
UTILITIES AND SERVICES SYSTEMS				
Mitigation 15-1.				

¹ Appl. = Applicant; City = City of San Francisco; SFRA = San Francisco Redevelopment Agency² DPC = During Project Construction; PBP = Prior to Issuance of Building Permit; PFM = Prior to Approval of Final Map; PGP = Prior to Issuance of Grading Permit; PPO = Prior to Project Occupancy; PTM = Prior to Tentative Map; STR = Specialized Timing Requirement³ SFRA = San Francisco Redevelopment Agency; Planning = San Francisco Planning Department; SFPW = San Francisco Public Works Department; SFFD = San Francisco Fire Department; SFPD = San Francisco Police Department

19. ORGANIZATIONS AND PERSONS CONTACTED AND EIR CONSULTANT TEAM

19.1 ORGANIZATIONS AND PERSONS CONTACTED

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