


Lake Merritt Station Area Plan

Draft
Environmental Impact Report

SCH # 2012032012

Volume II of II

November 2013

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Prepared for the **City of Oakland** by

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November 2013

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3.6 Public Services

This section provides an overview of the existing public facilities and services in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate. The public services covered here include public safety services, schools, and other public facilities such as libraries and community centers.

Environmental Setting

PHYSICAL SETTING

Police Services

City of Oakland Police Department

The Oakland Police Department (OPD) is headquartered at 455 7th Street, adjacent to the Planning Area. As of December 2009, the OPD is authorized for 787 sworn police officers. Currently, not all authorized positions are filled, and there are 613 sworn police officers.[1] The current ratio of sworn police officers per 1,000 residents is approximately 1.6, based on the city's population of 390,724 as of 2010. For a city the size of Oakland, the national police service standard is one officer per 1,000 residents. As of 2006, the average response time for Priority 1 emergency calls was 6.25 minutes. Priority 2 calls represent the greatest volume of calls and consist of offenses such as domestic disputes and stolen vehicles and average response time was approximately one hour. Priority 3 and 4 calls are non-emergency and average response times exceeded two hours.[2]

The City of Oakland is divided into six geographical areas called Police Service Areas (PSA), each is commanded by a Lieutenant of Police. The Planning Area located within PSAs 1 and 2. As of October 2009, PSA 1 and PSA 2 each had seven problem-solving officers. Problem-solving officers do not respond to service calls but are responsible for conducting projects in the community that patrol police officers frequently are unable to handle. Each PSA contains a Crime Reduction Unit that is responsible for violence reduction and narcotics enforcement efforts.

The area southeast of Lake Merritt, and the eastern part of the Planning Area, falls into OPD's Beat Map high priority zone 19X. Most of the Planning Area west of Lake Merritt Channel falls into Police Beat 03X, while the blocks north of 14th Street are in Beat 04X.

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[1] Foster, Jennifer, City of Oakland Police Department. Personal correspondence, December 18, 2009.

[2] Poirier, Michael and LSA Associates, for Measure DD Implementation Project EIR. Personal correspondence, July 2007.

According to OPD statistics, of the three beats that include the Planning Area, Police Beat 03X had the most homicides in the 90-day timeframe reported. Police Beat 04X, which covers most of central downtown Oakland including the northern edge of the Planning Area on the north side of 14th Street, had the highest number of other violent crimes, including assaults and domestic violence, as well as in most other categories, including theft, robbery, burglary, narcotics, and vandalism. Prostitution and narcotics incidents were highest in Beat 19X, which includes portions of the Planning Area east of the Channel. **Table 3.6-1** shows the type and number of crimes reported from October 24, 2009, to January 21, 2010, in each Beat area.

Table 3.6-1: Crimes by Police Beat Area

Crimes	*03X Chinatown Commercial Center; Upper Chinatown; BART Station Area; I-880; 14th St. Corridor south of 14th St.; Western part of Peralta/Laney*	*04X 14th Street Corridor North of 14th Street*	*19X East Lake Gateway; Eastern portion of Peralta/Laney*
Homicide	10	0	0
Felony Assault	6	16	7
Misdemeanor Assault	35	47	17
Domestic Violence	7	39	31
Theft – Auto	62	117	64
Theft – Grand	13	30	11
Theft – Petty	25	49	23
Robbery	31	45	39
Burglary – Commercial	5	8	1
Burglary – Residential	4	18	15
Narcotics	7	25	31
Prostitution	2	11	60
Drunkenness/Disorderly Conduct	17	26	8
Vandalism	23	32	17
Other	13	44	13
Total	**260**	**507**	**337**

Source: City of Oakland Police Department, 2010.

Oakland Police Chinatown Substation

The Oakland Chinatown Police Substation is located at 360A 8th Street off of Webster Street, in a new location opened in 2009. It serves as a vital police presence in the Chinatown community. The Asian Advisory Committee on Crime is also located here as an outreach and program for youth.

BART Police

The BART Police Headquarters are currently located underground at 800 Madison Street, at the Lake Merritt BART Station. The BART Police Department is comprised of 296 personnel, of which 206 are

sworn peace officers. The department is BART's sole law-enforcement entity and provides the full range of police services. To prepare for major emergencies, critical incidents, and tactical responses, the department is a signatory to the Bay Area's mutual-aid pacts and has teams of highly trained officers for tactical response and/or crisis negotiations. BART police officers are fully sworn peace officers that have the same powers of arrest as city police officers and county sheriff's deputies. BART officers may take enforcement action off of BART jurisdiction, anywhere within the state of California. If there is immediate danger to persons or property, BART officers may arrest, cite and release, or warn the perpetrators.

The Patrol Bureau is decentralized into four geographical police zones, each with its own headquarters and field offices. Zone lieutenants are assigned the personnel, equipment, and resources to manage their respective police operations. This community-based deployment strategy enhances the BART police's ability to work more closely with the local residents, allied public-safety agencies, businesses, schools, and other transit district employees.

Community Concern

According to the Community Engagement Process Report undertaken by Asian Health Services (AHS) as part of the Lake Merritt BART Station Area Plan, the community identified safety from crime as the highest priority need. Respondents identified the following guidelines for addressing public safety:

1. Create safe public spaces.
    - Increase foot traffic and create job opportunities by attracting small businesses.
    - Create a friendly, safe, and transit-oriented environment with better lighting and pedestrian improvements to enhance Chinatown and Laney College.
    - Strengthen linkages to key destinations within the area, including Oakland Chinatown and Laney College.
2. Promote safer streets.
    - Reduce traffic throughout the neighborhood.
    - Improve and maintain sidewalks.
    - Ensure cleanliness and safety of streets and intersection crossings.
3. Improve community police services.
    - Establish a police sub-station by the Lake Merritt BART Station.
4. Include violence prevention programs and policies.

Fire Services

Oakland Fire Department

The Oakland Fire Department provides fire protection services and emergency medical services from 25 fire stations throughout the city. The Fire Department currently maintains 25 engine companies with approximately four personnel per engine, and seven truck companies with four to five personnel per truck. The actual number of assigned personnel depends on the location of the emergency. Total Fire Department staffing consists of 562 personnel, of whom 492 are sworn fire suppression and emergency

medical personnel. Approximately 100 of Oakland's firefighters are also trained as paramedics, including at least one at each station, and many are trained as Emergency Medical Technicians (EMTs).

The Fire Department is organized into four divisions and three battalions. While the divisions focus on department functions, the battalions are organized by geographical districts, providing requested fire and emergency medical services. Battalion 2 serves West Oakland and North Oakland, including the Lake Merritt Planning Area. Battalion 4 serves Central Oakland, and Battalion 3 serves the area from Seminary Boulevard east to the city of San Leandro. (There is no Battalion 1.) Each battalion consists of seven to 10 stations.

There is one Fire Station within the Planning Area, Fire Station 12 at 822 Alice Street. Other nearby Fire Stations include:

- Fire Station 1 at 1605 Martin Luther King Jr. Way;
- Fire Station 2 at 100 Jack London Square; and
- Fire Station 4 at 1235 International Boulevard.

The Fire Department's response time goal is seven minutes or less, 90 percent of the time. Response time is measured from the time a call is received in the Fire Dispatch Center until the time the first unit arrives on the scene of the emergency. Service areas within 1.5 miles of a fire station are generally served within the service standard time.[3] The Fire Department is frequently a first responder for emergency medical services.

The Fire Department's Fire Prevention Bureau is responsible for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) Program. See Section 3.13: Hazards and Hazardous Materials for additional detail.

The Department has mutual aid agreements with the cities of Berkeley, Piedmont, and Alameda, Alameda County and Contra Costa County Fire Departments, and the East Bay Regional Park District.

Schools

Oakland Unified School District (OUSD)

OUSD operates two elementary schools and two small high schools in the Planning Area. Additionally, one middle school and two high schools located elsewhere serve students from the Planning Area. These schools, along with their capacity and enrollment, are shown in **Table 3.6-2**. There are also four charter schools in the Area serving elementary, middle, and high school students. These resources are described below.

[3] City of Oakland, Measure DD Implementation Project EIR, July 2007.

Table 3.6-2: Schools Serving the Planning Area

School Name	*Existing or Planned Capacity*	*Enrollment (2010-2011)*	*Percent Capacity*
OUSD Primary and Secondary Schools			
Lincoln Elementary School	576	635	110%
La Escuelita Elementary School[1]	360	250	69%
Westlake Middle School[2]	606	644	106%
MetWest High School[1]	180	151	84%
Dewey Academy[3]	NA	NA	NA
Oakland High School[2]	1,404	1,777	127%
Oakland Technical High School[2]	2,000	2,050	103%
Subtotal	**5,126**	**5,507**	**107%**
Charter Schools			
Yu Ming Charter School (K-8)	450	104	23%
The American Indian Public Charter School II (5-8)	775	170	22%
Envision High School (9-12)[2]	400	320	80%
Oakland Charter High School (9-12)	380	190	50%
Subtotal	**2,005**	**784**	**39%**

Notes:

1. Planned capacity is for Downtown Education Complex.
2. Outside Planning Area boundary.
3. As a special high school program serving the entire district, enrollment and capacity for this school are not counted for this analysis. The school had 273 students in 2010-11.

Source: Oakland Unified School District (OUSD) website, http://www.ousd.k12.ca.us/ousd/site/default.asp, accessed December 17, 2009; Capacity: OUSD, Downtown Education Complex Draft Initial Study/Mitigated Negative Declaration, August 2010. OUSD Website, Presentation to Oakland Unified School District, Long Range Facilities Master Plan, 2005, Enrollment: California Department of Education, Educational Demographics Unit, http://dq.cde.ca.gov/dataquest/, accessed September 9, 2011. Gail Greely, 2012; Dyett & Bhatia, 2012.

Lincoln Elementary School has over a century of history serving youth in the neighborhood and is one of the highest-performing elementary schools in OUSD. Currently, the K-5 public elementary school serves over 600 students—slightly over capacity. A large percentage of the student population comes from homes where a language other than English is spoken, including Cantonese, Mandarin, and Mongolian. Lincoln relies extensively on portable classrooms to accommodate its enrollment. The 2007 OUSD Facilities Master Plan identified the need to remove portables and either reduce enrollment or construct a two-story building addition, and to add four kindergarten classrooms.

La Escuelita Elementary and MetWest High are much smaller, serving approximately 250 and 150 students, respectively. MetWest's internship-based education program creates a school that is strongly linked to the community. Students partner with local businesses and organizations as part of the curriculum, building relationships with adult professionals. These schools are in the process of being consolidated into the Downtown Education Complex (described below) which will increase the La Escuelita and MetWest capacities by 110 and 44 students, respectively. This project was the top priority identified in the 2007 OUSD Facilities Master Plan.

Dewey Academy is an alternative high school for 16- to 18-year-olds in the OUSD district. The program moved to its current site on 2nd Avenue across from the new Downtown Educational Complex in 2001. As of 2010-11 it had 273 students.

The other OUSD schools that serve the Planning Area's population are also near or above capacity and the area's overall student enrollment currently is slightly over capacity, at 107 percent. The Downtown Education Complex will increase student capacity by 154 students. Demand may continue to exceed capacity. Local charter schools may be able to accommodate additional students.

Open Enrollment System

Enrollment at OUSD schools is based on the number of applicants. For elementary and middle schools, if schools have space, everyone who applied attends that school. If there are more applicants than spaces, first priority goes to students who have an older sibling living at the same address who is already attending the applicant's first choice school, second priority goes to students who live in the neighborhood boundary of a school, third priority goes to students who are re-directed from their neighborhood school to another school within their middle school boundary, fourth priority goes to students who live in a neighborhood where the local school(s) is (are) Program Improvement school(s), and fifth priority is an open lottery. As **Table 3.6-3** shows, between 2000 and 2005 the number of students living in the attendance areas of the Planning Area's two elementary schools was consistently lower than the number of students enrolled at those schools. This indicates that a considerable amount of local school space is used by students from outside the area. The table very likely underestimates the actual proportion of out-of-area students, since some students from the Planning Area travel to other schools.

Downtown Educational Complex

The Downtown Educational Complex is located between 2nd and 4th Avenues on East 10th Street. It will host La Escuelita Elementary, MetWest High School, and Yuk Yau and Centro Infantil Childhood Development Centers (which provide preschool programming for children ages three through five and an afterschool program for children in kindergarten through third grade) in a state-of-the-art, multi-use structure. The Complex's location—adjacent to Laney College—and orientation—toward the street and the neighborhood—present the opportunity to leverage this education resource to enhance relationships with OUSD and revitalize the East Lake Gateway Area. Construction began in the spring of 2011 will proceed in two phases, with a new La Escuelita Elementary in the first phase and the new MetWest High School and CDCs in the second phase, with completion projected for the fall of 2014.

Table 3.6-3: Historic Elementary School Enrollment Patterns in the Planning Area

Year	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*Average*
La Escuelita							
Students Who Live in the Attendance Area	270	224	219	192	172	152	205
Students Enrolled	312	266	267	257	255	239	266
Resident Students to Enrolled Students	0.87	0.84	0.82	0.75	0.67	0.64	0.76
Lincoln							
Students Who Live in the Attendance Area	593	604	598	599	604	591	598
Students Enrolled	635	642	622	607	610	606	620
Resident Students to Enrolled Students	0.93	0.94	0.96	0.99	0.99	0.98	0.96

Source: Lapkoff & Gobalet Demographic Research, Inc., 2006, Dyett & Bhatia, 2012.

Enrollment Trends and Facilities Capacity

Enrollment in OUSD public schools peaked in 1999-2000 at about 55,000 students, and has declined in the years since, reaching 38,445 in 2008-09. According to background documentation for the District's 2012 Facilities Master Plan, about half of the enrollment decline (approximately 7,200 students) has been absorbed by charter schools. Private school enrollment has nearly doubled, to about 19,000 students. In 2009, the ratio of OUSD enrollment was only slightly over half (56 percent) of total school-aged population in the service area. If all classroom-sized rooms in OUSD facilities were optimally used, the District is estimated to be able to accommodate up to 69,600 students—nearly twice the current enrollment—at an average classroom size of 32. Even with average classes as small as 20 students, existing facilities could accommodate 43,520 students.[4]

Charter Schools

Currently, several charter schools exist in the Planning Area, including the following, which are also summarized in **Table 3.6-2**.

- Oakland Charter High School (OCHS) serves approximately 150 high school students and 40 middle school students, and is expected to expand at both levels. The exact expansion is not currently known, but the school could double in size based on the space they have leased. The school is located at 345 12th Street at Webster.
- The American Indian Public Charter School II (AIPCS II) serves nearly 170 middle students (fifth through eighth grades) and is growing; the current plan is to add Kindergarten through fourth grade programming. The total projected student population at their current campus by 2016-17 is 775. The school is located at 171 12th Street, at Madison.

[4] MK Think Research for Oakland Unified School District (2009) Facility and Real Property Asset Management Study, Draft Working Document, 10/28/09, accessed at http://www.mikemcmahon.info/OUSDAssetMgmtStudy09.pdf on July 17, 2012.

- Envision High School, which is under the authority of the Alameda County Office of Education (not authorized by OUSD), is seeking to expand the school to closer to 400 high school students, and has expressed interest in OUSD's Lakeview facility. The school is currently located on the ninth floor of 436 14th Street between Franklin and Broadway.
- Yu Ming Charter School, which is under the authority of the Alameda County Office of Education as a "county-wide" charter school offers a growing Mandarin-immersion program for kindergarten through eighth grade, and is seeking a larger facility to serve their projected student population of 450 students, grades K-8 by 2018-2019. The school attracts students from throughout the area, and it would make sense for the school to stay in or near Chinatown if possible, and near good access to public transit and regional transportation networks. The school is located at 321 10th Street between Harrison and Webster.

In addition, Urban Montessori Charter School will be opening next year, serving kindergarten through eighth grade and projecting a student population of 750 students by 2017-2018. While the school is opening and spending its first few years at the District's Sherman campus near Mills College, it has expressed interest in locating downtown or near Lake Merritt.

Childcare Centers and Preschools

There are several child care centers and preschools located within the Planning Area. **Table 3.6-4** shows these child care facilities and their locations.

Table 3.6-4: Childcare Centers and Pre-K in Planning Area

Name	*Location*
Little Stars Preschool	169 14th Street
Starlite Child Development Center	246 14th Street
Oakland Head Start, Frank G Mar Center	274 12th Street
Lake Merritt Childcare Center	301 12th Street
Chinese Community United Methodist Church Nursery School	321 8th Street
Yuk Yau Annex Preschool and Yuk Yau Development School	314 10th Street

Source: Roy Chan, 2010, Dyett & Bhatia, 2009.

English as a Second Language

Finally, the Chinese Community Center and Milton Shoong Chinese Cultural Center offers after-school Chinese language classes to youth, English as a Second Language (ESL) classes, and a gym for cultural and recreational activities such as basketball, badminton, volleyball, and dance classes.

Student Generation Rate

Table 3.6-5 shows the number of students and housing units in the Planning Area, and shows that the Planning Area's student to housing unit ratio is considerably lower than that for the City as a whole. **Table 3.6-6** shows the estimated student generation rate based on a 2006 study initiated by OUSD to evaluate the effects of recent new downtown Oakland housing development on OUSD enrollments and

facilities.[5] The study cited several factors that affect student generation patterns in high-rise buildings. Typically, luxury high-rise condominium development generates very few students. Generation rates are a bit higher in older high-rise buildings, especially high-rise apartment buildings. The study showed that the Pacific Renaissance had a 0.06 student generation rate. Another consideration is unit type; Affordable or Below Market Rate Units often house a significant number of children. Therefore, to forecast students from new development, the study suggests a possible range of student generation rates. The study also considered the probable distribution of new students across the grades. Three possibilities were presented:

1. Students will be evenly distributed across the grades (K-5 students would then be 46 percent, or 6/13 of the total);
2. Students will mirror OUSD's historical grade distribution, which is concentrated in the lower grades (between 50 and 57 percent of OUSD enrollments have been K-5 students during the 1983 to 2005 period); or
3. The concentration in the lower grades will be even greater than OUSD's historical pattern, since households in subsidized housing tend to have younger children than the district as a whole.

The study concludes by projecting that 60 percent of new students will be in the K-5 grades, with 20 percent each in middle (6-8) and high school (9-12) grades.

Table 3.6-5: Students per Housing Unit in Planning Area (2009)

Area	*Students*[1]	*Housing Units*	*Student/Housing Unit*
Planning Area	1,209	6,582	0.18
Oakland	69,832	163,026	0.43

1. Assumes student population is total population aged 5 to 17.

Source: Claritas, Inc., 2009; Dyett & Bhatia, 2009.

Table 3.6-6: Estimated Student Generation Rate Forecasts

Unit type	*Low*	*Medium*	*High*
Market-rate Units	0.01	0.03	0.1
Below-market rate units	0.4	0.4	0.7

Source: Lapkoff & Gobalet Demographic Research, Inc., Impact of New Housing Developments on OUSD Enrollments and Facilities, September 5, 2006.

Laney College

Laney College is the largest of the four Peralta Community Colleges, and a major feature of the Planning Area, providing educational and cultural programming to residents of the surrounding neighborhoods and beyond. It is located at 900 Fallon Street, adjacent to the Lake Merritt BART Station and Oakland Museum of California, on about 60 acres. The College has over 13,000 students, including about 500 international students, and has more than 480 full-time and adjunct positions. It serves Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont, though students from other nearby cities attend as well.

[5] Lapkoff & Gobalet Demographic Research, Inc., *Impact of New Housing Developments on OUSD Enrollments and Facilities,* September 5, 2006.

An accredited California community college, Laney offers 32 Associate of Arts and 12 Associate of Science Degrees as well as 28 Certificate Programs. Programs are designed to provide general, transfer, and occupational/career technical education; English curriculum, basic skills education; and cooperative work experience education. Laney College also functions as a community facility and cultural gathering place. The campus is home to Laney Bistro, a restaurant operated by students, and the Performance Theatre and an Arts Center and Gallery, which hosts numerous artists and performers.

Laney serves a diverse student population. Students are 32 percent Asian, 29 percent African American, 16 percent white, 13 percent Latino, and 10 percent other/unknown. The average age is 31 and about 30 languages are spoken on campus. Most students work while taking classes and attend classes at part time. Peak hours for student activity are from 8:00 AM to 1:00 PM and from 5:00 to 10:00 PM. The Laney parking lot is generally full during these times, and parking overflows to city streets.

Several programs at Laney College serve the community in addition to academic post-secondary education programs listed above. For instance, the College works with OUSD to promote post-secondary education through counseling services, summer programs, and campus tours. The College also works with various trades to develop apprenticeship and internship opportunities.

Libraries

Main Library

The Oakland Public Library system's Main Library, located in the Planning Area at 125 14th Street, is one of the largest public library facilities in the Bay Area. In addition to large collections of over 350,000 reference and circulating non-fiction and fiction books, the Main Library offers hundreds of current and historic magazines and newspapers, a major collection of sheet music and thousands of maps. There are federal, state and local government publications and a large collection of compact discs, videocassettes, DVDs and audiobooks. It also features an Oakland History Room, a significant resource on the history of the area, a large and active Children's Room, and a TeenZone. Thirty-three computers with Internet access are available for public use.[6]

Asian Branch Library

The Asian Branch Library is located in Pacific Renaissance Plaza at 388 9th Street. The Library is unique among public library branches in the United States as it houses eight Asian languages (Chinese, Japanese, Korean, Vietnamese, Thai, Cambodian, Tagalog and Laotian) in major reference titles and general subject titles. Additionally, it has an Asian Studies collection, an in-depth Asian American collection in English and a unique young adult Manga collection. English holdings comprise 30 percent of the total library collection which has approximately 74,000 books, CDs, videos, DVDs, VCDs, magazines and newspapers for adults, pre-school children and a growing teen collection. The Library has nine computers with internet access.[7] The Asian Branch Library is the second-busiest branch in the Oakland Public Library system after the Main Library.

[6] City of Oakland Main Library website, http://www.oaklandlibrary.org/Seasonal/Sections/mainhrs.html, accessed December 17, 2009.

[7] City of Oakland Main Library website, http://www.oaklandlibrary.org/Branches/asian.html, accessed December 17, 2009.

According to the Asian Health Services (AHS) Community Engagement Process Report completed in 2009 as part of this project, the community vision for the area includes promoting library programs for youth, families, and seniors.

Laney College Library

The Laney College campus includes a library open to Peralta students. The Library provides a collection of books and periodicals, inter-library loan, access to academic databases, computers, group study rooms, an audio/visual center, and other resources.

Alameda County Law Library

The Alameda County Law Library at 125 12th Street in the Planning Area provides access to current legal information to Alameda County judges, officials, and residents as well as any attorney licensed to practice law.

Community Facilities and Cultural Gathering Spaces

Lincoln Square Recreation Center

The Lincoln Square Recreation Center is located in Lincoln Park and is run by the City of Oakland Parks and Recreation. It features programs such as arts and crafts, cooking, games and cultural programs, excursions and annual traditions such as the Lunar New Year art contest. The Center is open on weekdays from 8:30 AM to 9:00 PM, and on weekends from 2:00 PM to 5:00 PM. Each week, the Center serves hundreds of people of all ages in the Chinatown community and outside of the community. The Center has a multi-purpose gym and an outdoor playground which offers cultural classes and recreational activities year round, including, ballroom dance, Chinese calligraphy, Chinese lion dance, Chinese orchestra, table tennis, basketball, line dance, and youth dance. In many ways, the Center serves as an active open space and community gathering space for youth during/after school and for adults/seniors throughout the day.

Madison Square Park

Madison Square Park includes grass areas, as well as a small children's play area. People can also be found at Madison Square Park practicing the arts of tai-chi, qigong and fan dancing. However, the park does not have nearly the level of activity seen at Lincoln Square Park. There are no public buildings with activities, and no restrooms.

Hall of Pioneers and Sun Yat Sen Memorial Hall in Chinese Garden Park

Chinese Garden Park (formerly Harrison Square) features a Hall of Pioneers and Sun Yat Sen Memorial Hall, along with a pagoda. The hall serves as the Hong Lok Senior Center, a drop-in center for seniors ages 55 years and older, and as a general social center. The Park and community spaces are located adjacent to the I-880 freeway.

Oakland Asian Cultural Center

The Oakland Asian Cultural Center (OACC) is located at 388 9th Street in Pacific Renaissance Plaza, above the Asian Branch Library. Through festivals, classes, exhibitions, school tours and other programs, its mission is to build vibrant communities through Asian and Pacific Islander American (APIA) arts and culture programs that foster intergenerational and cross-cultural dialogue, cultural identity, collaborations,

and social justice. The Center hosts two annual festivals, an artist in residence program, a changing exhibition space, a school tour program, a Chinatown oral history project, and numerous performance/ visual art classes throughout the week. The 15,000 square-foot center includes a 325-seat auditorium designed with lighting, sound stage and dressing rooms for performances and flexible seating arrangements. A full-service kitchen is available for catering and culinary classes. Other facilities include classrooms, conference rooms, a dance studio and exhibit space. The Center serves an estimated 25,000-30,000 people each year.

Milton Shoong "Mun Fu Yuen" Chinese Cultural Center

The Milton Shoong "Mun Fu Yuen" Chinese Cultural Center is located at 316 9th Street. For well over 50 years, the Center has offered Chinese language classes to youth, English as a Second Language (ESL) classes, and a gym for cultural and recreational activities such as basketball, badminton, volleyball, and dance classes. Historically, there have been other Chinese language schools and English as a Second Language (ESL) classes for the community such as the Wah Que School on 9th Street and churches in the community, but the Chinese Community Center has served this role in recent decades since its opening in 1953.

Malonga Casquelourd Center for the Arts

Patrons of Malonga Casquelourd Center for the Arts can participate in a variety of arts programs or rent spaces for arts events and activities. Spaces available for rent include a 400-seat theater, five dance studios, meeting rooms and rehearsal spaces. The Center is located at 1428 Alice Street.

Oakland Museum of California

Established in 1969 as a "museum for the people," the Oakland Museum of California (OMCA) tells the story of California through its collections of art, history and natural science. The Museum has three levels of galleries integrated with landscaped terraces and roof gardens. It is currently undergoing renovation and expansion. Modifications encompass new exhibition and programming space, seating, and modernized lighting for better viewing of the collections. A new 90-foot canopy over the Oak Street entrance enhances the Museum's street presence. Galleries for art and history have been completed, while the Natural Sciences Gallery and classroom and education facilities will be completed in 2012.[8]

Family and Regional Associations

Family Associations such as the Wong Association and regional associations such as the Zhong Shang Doo Tao Association have been around since immigrants began locating to the area. These associations allow immigrant groups from a particular family name or ancestral area in China to reunite and build community in Chinatown. They provide social services and recreational activities such as Mah Jong or cultural celebrations. There are over a dozen such associations in Chinatown.

Churches in Chinatown

Churches in Chinatown date back to the 1870s and have historically served as spaces for community gathering and formation. Early churches, such as the Presbyterians and Methodists, offered English classes for immigrants in addition to other community services. The Ming Quong Home for orphaned

[8] Oakland Museum of California website, http://museumca.org/our-building, accessed June 18, 2012.

girls was started by the Presbyterians and was located on 9th and Fallon Streets from 1936 until the 1950s. Churches reflect over a century of physical changes to Chinatown and the community's resilience to these changes. The Buddhist Church of Oakland served as a place of continuity for Japanese Americans in Chinatown amid relocation of members to internment camps in 1942 during World War II and its building relocation in 1950 from 6th and Jackson Streets up three blocks to 9th Street. The Episcopal Church of Our Savior was forced to relocate from 9th and Madison Streets to 10th and Harrison Streets to make way for BART in 1965. Today, Chinatown churches continue to serve as key community and cultural gathering spaces with continuing services such as ESL classes, day care, and summer youth programs. Churches include the following:

- Buddhist Church of Oakland. 825 Jackson Street;
- The Light of the Buddha Temple. 632 Oak Street;
- Chinese Community United Methodist Church. 321 8th Street;
- Chinese Presbyterian Church. 265 8th Street;
- Chinese Independent Baptist Church. 280 8th Street; and
- The Episcopal Church of Our Savior. 1011 Harrison Street.

Community Service Providers

Oakland Chinatown has a long history of being home to numerous service providers that focus on the needs of Asian and Pacific Islander immigrants.

Family Bridges, Inc.

Family Bridges, Inc. is a nonprofit, multi-service agency providing a variety of health and social services programs for the community. These programs include the Hong Fook Adult Day Health Care Centers, Hong Lok Senior Center, the Friendly Visitors program, the Social Services program, Registry Services, and the Diabetes Education Center. Services are targeted to serve immigrants who have limited English proficiency.

The main Administrative Office, Diabetes Education Center, and the Social Services program are located at 168 11th Street. The Hong Fook Adult Day Health Care Center is located at 275 14th Street, in the Hotel Oakland, a 315-unit senior housing facility. The sister site, Hong Fook ADHC Center—Harrison Street, is around the corner at 1388 Harrison Street. Family Bridges, Inc. also runs the Hong Lok Senior Center in Chinese Garden Park.

Asian Health Services

Asian Health Services (AHS) is a community health center that offers primary health care services with 36 exam rooms and a dental clinic with seven chairs. It serves over 20,000 patients and over 90,000 patient visits annually. AHS' main clinic is located at 818 Webster Street. A satellite clinic located at the Hotel Oakland, at 275 14th Street, specializes in elderly patients. AHS' mission is to serve and advocate for the Asian and Pacific Islander (API) community by ensuring access to health care services regardless of income, insurance status, immigration status, language, or culture. Its staff is fluent in English and nine Asian languages including Cantonese, Vietnamese, Mandarin, Korean, Khmer (Cambodian), Mien, Mongolian, Tagalog, and Lao.

Vietnamese Community Center of the East Bay

Located on 106 International Boulevard, the Community Center offers summer youth programs and senior programs such as physical and wellness activities, nutrition service, ESL and citizenship classes, legal interpretation and translation, information and referral, and shuttle services.

Community Health for Asian Americans

Community Health for Asian Americans is located at 255 International Boulevard. CHAA's Oakland site offers children's mental health services; co-occurring mental health/alcohol and other drugs treatment for youth; and adult mental health services. Services are also provided at Lincoln Elementary School.

Open Door Mission

Open Door Mission, located on 92 7th Street, serves breakfast and dinner daily, except for Saturday.

Salvation Army

The Salvation Army has two locations in the Planning Area. The Salvation Army Oakland Chinatown Corps and Community Center located at 379 12th Street serves as the office for family services and as a food pantry. The location at 601 Webster serves as a men's rehabilitation center.

East Bay Asian Local Development Corporation

The East Bay Asian Local Development Corporation (EBALDC) is located at 310 8th Street, home of the Asian Resource Center which is a multi-service center housing social services and businesses. EBALDC is a community development corporation that develops affordable housing and community facilities with integrated services focused on tenants and neighborhood residents, with emphasis on Asian and Pacific Islander communities and the diverse low income populations of the East Bay.

Asian Community Mental Health Services

Asian Community Mental Health Services is located at 310 8th Street and provides multicultural and multilingual services, assisting the most vulnerable members of the community to lead healthy, productive and contributing lives.

Asian Pacific Environmental Network

APEN is located at 310 8th Street and seeks to empower low-income Asian Pacific Islander (API) communities to achieve environmental and social justice. APEN believes that the environment includes everything around us: where we live, work and play. It strives to build grassroots organizations that will improve the health, well-being and political strength of local communities.

Filipino Advocates for Justice (Filipinos for Affirmative Action)

Filipino Advocates for Justice is located at 310 8th Street. Its mission is to build a strong Filipino community by organizing constituents, developing leaders, providing services, and advocating for policies that promote social and economic justice and equity for all.

Asian Youth Promoting Advocacy and Leadership

Asian Youth Promoting Advocacy and Leadership is located at 310 8th Street as its fiscal sponsor is Asian Community Mental Health Services. It partners with other community groups to organize and build the power of low-income Asian Pacific Islander youth to fight social inequities and to advance an agenda for progressive social change.

Chinatown Chamber of Commerce

The Chinatown Chamber of Commerce is located at 388 9th Street. It was created to promote and advocate for business and trade in Chinatown the Oakland Asian Community. Each year, the Chamber organizes the Lunar New Year Festival in February, the summer Night Market in June/July, and Streetfest in August.

Oakland Asian Students Educational Services

The Oakland Asian Students Educational Services is located at 225 11th Street. Its mission is to empower students with limited resources through education, mentorship and service to strengthen the Oakland community. It has over 400 volunteers serving over 400 students in grades K-12 each year.

Oakland Asian Cultural Center

The Oakland Asian Cultural Center is described under "Community Facilities and Cultural Gathering Spaces."

Chinese American Citizens Alliance

The Chinese American Citizens Alliance is located at 303 8th Street. It was one of the first community organizations in Chinatown and throughout its history has advocated for civil rights for immigrants.

National Council on Crime and Delinquency (NCCD)

The National Council on Crime and Delinquency is located at 1970 Broadway in Oakland, and is currently spearheading a community effort to explore the potential creation of a youth center in Oakland Chinatown.

Social Security Administration

This Social Security Administration office is located at 238 11th Street.

Lincoln Square Recreation Center

The Lincoln Recreation Center is described under "Community Facilities and Cultural Gathering Spaces."

Wa Sung Community Service Club

The Wa Sung Community Service Club began awarding scholarships in 1957 to outstanding students of Asian descent graduating from high schools in Alameda and Contra Costa Counties. The Club also hosts an annual Easter Pancake Breakfast for the community at Lincoln Square.

REGULATORY SETTING

State

California Fire Code

The California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

Impact Fees

State law allows a city or county to impose fees as a condition of approving any development project if it can demonstrate a relationship between the fee and the purpose for which it is being earmarked. The jurisdiction must conduct studies to demonstrate a reasonable relationship between the need for the public facility and the type of development project. It must also be able to show there is a reasonable relationship between the amount of the fee and the cost of the public facility attributable to the development (California Government Code section 66000 et. seq.).

Local

City of Oakland General Plan

The City's General Plan includes policy direction concerning public safety services, schools, and other community facilities, summarized below.

Safety Element (2004)

Policy FI-1: Maintain and enhance the city's capacity for emergency response, fire prevention and firefighting.

Action FI-1.1: Periodically assess the need for new or relocated fire stations and other facilities, changes in staffing levels, and additional or updated supplies, equipment, technologies and in-service training classes.

Action FI-1.2: Strive to meet a goal of responding to fires and other emergencies within seven minutes of notification 90 percent of the time.

Policy FI-2: Continue, enhance or implement programs that seek to reduce the risk of structural fires.

Action FI-2.2: Continue to enforce provisions under the local housing code requiring the use of fire-resistant construction and the provision of smoke detectors and fire-extinguishing systems.

Action FI-2.3: Continue to review development proposals to ensure that they incorporate required and appropriate fire-mitigation measures, including adequate provisions of occupant evacuation and access by fire-fighting personnel and equipment.

Policy PS-2: Reduce the city's rate of violent crime, in particular the number of crime-related injuries and deaths, and the public fear which results from violent crime.

Policy PS-3: Enhance the city's capacity to prevent and respond to terrorist attacks.

Safety Element policies are supported by additional actions, including implementing and periodically assessing the City's Violence Prevention Plan, and researching and disseminating information on physical planning and design strategies that reduce crime.

Land Use and Transportation Element (1998)

Policy D12.6: **Supporting Educational Institutions.** Educational institutions should be supported in the downtown and encouraged to integrate with other downtown activities, including private businesses.

Policy N2.2: **Providing Distributed Services.** Provision of services by civic and institutional uses should be distributed and coordinated to meet the needs of city residents.

Policy N7.2: **Defining Compatibility.** Infrastructure availability, environmental constraints and natural features, emergency response and evacuation times, street width and function, prevailing lot size, predominant development type and height, scenic values, distance from public transit, and desired neighborhood character are among the factors that could be taken into account when developing and mapping zoning designations or determining "compatibility." These factors should be balanced with the citywide need for additional housing.

Policy N12.1: **Developing Public Service Facilities.** The development of public facilities and staffing of safety-related services, such as fire stations, should be sequenced and timed to provide a balance between land use and population growth, and public services at all times.

Policy N12.2: **Making Schools Available.** Adequate public school capacity should be available to meet the needs of Oakland's growing community. The City and the Oakland Unified School District (OUSD) should work together to establish a continuing procedure for coordinating residential and commercial development and exploring the imposition of mutually agreed upon reasonable and feasible strategies to provide for adequate school capacity.

Policy N.12.5: **Reducing Capital Improvement Disparities.** In its capital improvement and public service programs, the City should give priority to reducing deficiencies in, and disparities between, existing residential areas.

Open Space, Conservation and Recreation Element (1996)

Policy REC-5.2: Safety-Oriented Design. Use a wide range of physical design solutions to improve safety in Oakland's parks, including lighting, signage, landscape design, fencing, vandal-resistant building materials, and emergency response features.

Policy REC-5.3: Law Enforcement. Improve law enforcement of Oakland's parks through a combination of new rangers, reserve officers, neighborhood watch groups, coordination with East Bay Regional Park District rangers, and better communication between enforcement officers and neighborhood residents.

Policy REC-S.4: Civic Responsibility. Promote civic responsibility among residents in the care of Oakland's parks and encourage broad community participation in making parks safer.

City of Oakland Violence Prevention Plan

The City's Violence Prevention Plan, first adopted in 1996 and updated in 2003, proposes prevention and intervention efforts that complement traditional policing and the criminal justice system. It is focuses on areas that have been most prone to violent crime, and proposes multi-disciplinary strategies such as providing alternatives for youth, addressing family violence and sexual assault, establishing programs for offenders, reducing access to illegal guns, reducing the impacts of alcohol and drugs, and supporting community-building and problem-solving initiatives.

Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-4. Conformance with other Requirements

Prior to issuance of a demolition, grading, P-job, or other construction related permit

a. The project applicant shall comply with all other applicable federal, state, regional and/or local laws/codes, requirements, regulations, and guidelines, including but not limited to those imposed by the City's Building Services Division, the City's Fire Marshal, and the City's Public Works Agency. Compliance with other applicable requirements may require changes to the approved use and/or plans. These changes shall be processed in accordance with the procedures contained in Condition of Approval 3.

b. The applicant shall submit approved building plans for project-specific needs related to fire protection to the Fire Services Division for review and approval, including, but not limited to automatic extinguishing systems, water supply improvements and hydrants, fire department access, and vegetation management for preventing fires and soil erosion.

SCA-20. Improvements in the Public Right-of-Way (General)[9]

Approved prior to the issuance of a P-job or building permit

a. The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and/or mitigations and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements located within the public ROW.

b. Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition and/or mitigations.

c. The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit.

d. The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.

SCA-21. Improvements in the Public Right-of Way (Specific)

Approved prior to the issuance of a grading or building permit

Final building and public improvement plans submitted to the Building Services Division shall include the following components:

a. Install additional standard City of Oakland streetlights.

b. Remove and replace any existing driveway that will not be used for access to the property with new concrete sidewalk, curb and gutter.

c. Reconstruct drainage facility to current City standard.

d. Provide separation between sanitary sewer and water lines to comply with current City of Oakland and Alameda Health Department standards.

e. Construct wheelchair ramps that comply with Americans with Disability Act requirements and current City Standards.

f. Remove and replace deficient concrete sidewalk, curb and gutter within property frontage.

g. Provide adequate fire department access and water supply, including, but not limited to currently adopted fire codes and standards.

[9] Part 2: Additional General Conditions of Approval for Major Permits (Initial Decision is by the Planning Commission and can be appealed to City Council).

SCA-61.Site Review by the Fire Services Division

Prior to the issuance of demolition, grading or building permit

The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.

SCA-71. Fire Safety Phasing Plan

Prior to issuance of a demolition, grading, and/or construction and concurrent with any p-job submittal permit for a project constructed pursuant to the Redevelopment Plan, the project applicant shall submit a separate fire safety phasing plan to the Planning and Zoning Division and Fire Services Division for their review and approval. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. Fire Services Division may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR completed in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

The Housing Element EIR determined that the development of the identified housing opportunity sites may result in the need for new or expanded fire, police, school, and park facilities. The construction of new or expanded fire, police, school or park facilities could result in adverse environmental impacts. However, all future development would occur pursuant to General Plan policies, Municipal Code regulations, mitigation measures adopted for the LUTE EIR, and the SCAs that would reduce the potential impact on services to less than significant levels. Moreover, separate CEQA review would be implemented, as needed, for new construction as required by State law, and additional mitigation measures would be imposed to reduce impacts. As such, the Housing Element EIR concluded that impacts on public services would be less than significant.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact on the environment if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

a. Fire protection;

b. Police protection;

c. Schools; and

d. Other public facilities.

METHODOLOGY AND ASSUMPTIONS

This EIR addresses impacts to public services due to projected growth arising from land use changes resulting from the proposed Station Area Plan. The analysis considered existing public safety services, schools, and other community facilities, as well as current General Plan policies, City of Oakland SCA, and other applicable regulations. Estimates of reasonably foreseeable maximum development and policies are compared with service levels to identify potential impacts.

Population and Housing

Existing residential units are based on ACTC/ABAG projections for 2005, with projects completed between 2005 and 2012 added in. Households are determined based on the assumption of a 5 percent vacancy rate, and population is estimated by assuming 2.1 persons per household. Estimates are rounded to the nearest hundred or thousand.

Fire Protection Services

The projected need for additional fire stations, staffing and equipment was evaluated based on OFD's response time goal of seven minutes or less, 90 percent of the time, and on a consideration of stated Fire Department needs.

Police Services

The need for additional police services was evaluated based on the City Police Department maintaining the current service ratio of approximately 1.6 sworn officers per 1,000 residents. Using the estimated population increase from the residential development within the Planning Area, the number of new officers needed at reasonably foreseeable maximum development was determined.

Schools

The impact on local schools resulting from new development under the Station Area Plan was evaluated based on demographic projections for Alameda County, students per housing unit in the Planning Area today, and projected student generation rates by housing type, as described in the Settings section.

SUMMARY OF IMPACTS

Impact PUB-1 – Fire Services

The Planning Area is well-served by the Oakland Fire Department (OFD), with four stations located well within the radius that can be served within the target response time of seven minutes for 90 percent of calls, including one station within the Planning Area. The projected population increase of 9,870 that would come with reasonably foreseeable maximum development and the introduction of new high-rise buildings both point to the need for additional services in the area. The allocation of fire services will be made based on citywide development trends and following existing City of Oakland General Plan policies for ensuring fire service provision. OFD may consider adding capacity to existing stations (moving to a "mega-station" approach) in parts of Oakland as the City grows and becomes more dense. All new

development will be required to adhere to relevant State and City codes and SCA concerning fire safety. As a result the potential impact of new development in the Planning Area is less than significant.

Impact PUB-2 –Police Services

Population growth in the Planning Area would result in a slight decrease in the Police Department's service ratio (officers per 1,000 population), if growth were not accompanied by additional staffing. As with fire services, police services will be allocated based on citywide needs. If the citywide population were to grow by 141,100 in 2035 as anticipated by ABAG, there will be an overall need for additional police services, of which the Planning Area's projected 9,870 new residents will be responsible for only a small portion. As a result, this potential impact is less than significant.

Impact PUB-3 –Schools and Other Community Facilities

The six Oakland Unified School District (OUSD) schools serving the Planning Area are currently over-enrolled by about 380 students. When the capacity of local charter schools is considered, the Planning Area has an estimated capacity for an additional 840 students. Reasonably foreseeable maximum development under the Station Area Plan may be expected to result in between 336 and 931 new students by 2035. When this is broken down by grade level, both elementary and high school enrollment would be over capacity under the "High" forecast. Only the high school level would be over capacity under the "Medium" or "Low" forecasts. At the district-wide scale, OUSD's enrollment has dropped significantly since its peak in 1999, and is projected to remain stable at least through the 2018-19 academic year at approximately 38,000. Meanwhile, OUSD facilities are estimated to have the capacity to support 43,520 students (at 20 students per classroom) to 69,630 students at 32 students per classroom, if all potential classroom space is used. The District's draft 2012 Facilities Master Plan emphasizes making better use of existing space, and improving school-community shared resources. If development under the Station Area Plan generates more students than local schools have a capacity for, these students should be able to be accommodated by schools outside the Planning Area. More local students may also be absorbed at Planning Area schools if they use the Open Enrollment priority system to enroll in the local schools.

The Planning Area is exceptionally well-served by libraries.

This potential impact is less than significant.

Cumulative Impact PUB-4 – Public Services Demand

Development under the Station Area Plan, combined with cumulative development throughout Oakland, will result in increased demand for fire and police services, schools, and other community facilities. In Oakland, public services are planned and implemented at the citywide scale. Planning Area development will be considered alongside other development in the planning of potential new or enhanced fire stations, adjustments to police staffing and strategies, and school facilities planning. To keep up with growing population, fire and police services will need to have additional resources, and new development will provide additional revenues. School enrollment is not expected to increase citywide in the timeframe of the current facilities plan, which accounts for current and foreseeable development projects. The City's General Plan policies for maintaining effective public services must be followed. This will reduce the potential cumulative impact on public services demand of Planning Area and citywide development to less than significant.

IMPACTS

Impact PUB-1

Future development under the proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection. (*Less than Significant)*

The Oakland Fire Department (OFD) provides fire and emergency services to the City of Oakland, including the Planning Area, which is home to Fire Station 12, located at 822 Alice Street. Three other fire stations are located within one-half to two-thirds of a mile of the Planning Area to the southwest, northwest, and southeast. OFD sets a standard of a seven minute response time for 90 percent of calls. According to the Department, calls within one and a half miles of a station are generally reached within the response time standard.

The proposed Plan would support a 2035 population of 15,960 in the Planning Area with reasonably foreseeable maximum development, an increase of 9,870 from today, and the need for emergency services may be expected to increase accordingly. While the Planning Area is well-served by four stations within one and a half miles, the large increase in population may necessitate additional facilities, equipment and staffing.

It is important to remember that OFD's service area encompasses all of Oakland. Its staffing and facilities decisions will be made based on overall growth patterns in Oakland and the specific areas of service population growth and decline within the city. ABAG's most recent growth estimate for Oakland projects 141,100 new residents by 2035. When this projected growth is broken down at a local level, development in the Planning Area matches ABAG population and job projections nearly exactly. New development in the Planning Area would account for about 9 percent of Oakland's population growth and 5 percent of its job growth. The Department's citywide plans for meeting the changing fire service needs of the City may result in changes to fire service in the Planning Area, but Planning Area development on its own represents a relatively small proportion of citywide growth. New development citywide will provide additional tax revenue and other development fees that will go toward paying for increased public services. Individual projects will be analyzed for their potential project-specific impacts to this demand.

A 2007 study by the Oakland Fire Department anticipated the City of Oakland growing more slowly, by approximately 40,000 residents by 2025. The study concluded that growth would result in the need for additional staff and resources and the potential adoption of a "mega-station" concept allowing multiple units to serve from one fire station.[10] This analysis suggests that one option for serving additional growth in the Planning Area will be to expand the capacity of existing stations.

In addition to facilitating population and job growth as discussed above, the Station Area Plan would bring new high-rise development at a range of heights. High-rise buildings present unique challenges for firefighting. The Station Area Plan's recommended base height limits are designed to be consistent with

[10] Oakland Fire Department, *A Report and Recommendations from the Chief of Oakland Fire Department, Regarding Firefighting Capacity/Proposed Large Scale Housing Developments on the Department's Future Staffing and Equipment Needs,* 2007. Available at http://clerkwebsvr1.oaklandnet.com/attachments/15638.pdf, accessed July 6, 2012.

breaking points in cost of construction for different construction types. The proposed 45- to 55-foot height limits are consistent with Type V construction (wood frame, with the lowest construction costs). The proposed 85-foot height limit allows for Type III modified (typically six stories) and Type I (where the top habitable floor level is less than 75 feet above grade, meaning fire ladders can reach them). The shift to Type I above eight stories typically requires additional fire safety measures including electronic fire alarm signalization system. OFD already provides fire protection services for a large number of high-rise buildings, and will continue to ensure code compliance and assure trained fire personnel and adequate equipment.

The proposed Station Area Plan is not anticipated to result in construction of new fire facilities or expansion of existing facilities. If such facilities are needed, they will be planned in the larger context of growth in Oakland. Future development, including high-rise buildings, will be subject to plan review by the OFD to ensure proper life safety standards and adequate emergency response access. The Fire Department would review the project, including provisions for onsite access, exits, and any necessary special equipment to assist firefighters on-site. The project applicant would be required to incorporate the Fire Department's recommendations into the final project.

This review will in turn be based on applicable California State Fire Code, the Uniform Building Code and the Oakland Municipal Code, as well as the SCA provided above. In accordance with the Fire Code, the Fire Department would require that fire prevention measures, such as automatic sprinklers, smoke detectors, fire alarm systems, and fire resistant construction, be incorporated into final project plans for each building. All appropriate building and fire code requirements would be incorporated into project construction.

General Plan policies, meanwhile, require that the City maintain and enhance its capacity for fire prevention and emergency response, and develop public safety facilities in balance with land use change and population growth. These include Safety Element policies FI-1 and FI-2 and their related actions, as well as Policy N12.1 in the Land Use and Transportation Element (LUTE), which states that the development of public facilities and staffing of safety-related services, such as fire stations, should be sequenced and timed to provide a balance between land use and population growth, and public services at all times. SCA 4 ensure that all new development complies with all applicable codes and requirements, including those of the Fire Marshal and that building plans are submitted to the Fire Services Division for review and approval. The potential impact of the proposed Station Area Plan on fire services is less than significant with adherence to all existing regulations and General Plan policies.

Mitigation Measures

None required.

Impact PUB-2

Future development under the proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection. (*Less than Significant)*

Residents and workers in the Planning Area are served by the Oakland Police Department, whose headquarters is directly adjacent at 455 7th Street. With 787 sworn officers, the Department currently provides 1.6 officers per 1,000 residents, below the national standard for a city its size. As of 2006, officers are continuously responding to calls during most shifts, conducting preventative patrols as time permits. Most calls consist of minor offenses; these calls are typically responded to in approximately an hour.[11]

In the absence of any change to police staffing, the population increase of 9,870 residents resulting from reasonably foreseeable maximum development under the proposed Plan would result in a slight decrease in the existing service ratio. As with fire services, the impact of development in the Planning Area on police services must be seen in the context of citywide growth over the next 25 years. ABAG's most recent analysis projects Oakland to grow by approximately 141,100 by 2035. The Planning Area is well-served by police, from the Chinatown Substation as well as Police Headquarters nearby. While staffing levels may need to be increased, no construction of new facilities is anticipated. Policy N2.2 in the LUTE calls for the City to continue to coordinate service provision with the needs of the population. Development in the Station Area will occur over an extended period and in the context of citywide growth, and the Police Department will adjust its services as needed as growth occurs Given these policies and conditions, additional demands on police services resulting from Station Area Plan development would be reduced to less than significant.

The Station Area Plan also seeks to enhance public safety, which should have the indirect effect of reducing the impact of new development on police services. These policies include redesigning Madison Square Park with an emphasis on designing for safety, and using new design guidelines that incorporate the concepts of defensible space and "eyes on the street." New development and major alterations will be required to demonstrate conformance with the intent of the guidelines. Other Plan policies will be also pursued, but these policies are not required to reduce the potential impact to less than significant.

Mitigation Measures

None required.

Impact PUB-3

Future development under the proposed Plan would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools or other public facilities. (*Less than Significant*)

Schools

Taken together, the six Oakland Unified School District schools serving the Planning Area are currently enrolled over capacity by approximately 380 students. Lincoln Elementary, Westlake Middle, Oakland High, and Oakland Technical High School are each over capacity, while the smaller schools (La Escuelita Elementary and MetWest High School) have available space (see **Table 3.6-2**). Charter schools in the

[11] Poirier, Michael, Chief of Staff, Oakland Police Department (2007) Personal correspondence with LSA Associates, for Measure DD Implementation Project EIR, July 2007.

Planning Area, on the other hand, have the capacity to take an estimated 1,220 additional students. The new Downtown Educational Campus nearing completion in the Planning Area will provide high-quality new school facilities for the community, and increase local school capacity by about 150.

The Planning Area is projected to have 4,900 new housing units at reasonably foreseeable maximum development, and 15 percent of these are targeted to be below-market rate units. A 2006 study by Lapkoff & Gobalet Demographic Research, Inc., "Impact of New Housing Developments on OUSD Enrollments and Facilities," laid out low, medium, and high forecasts for student generation, based on recent new housing development in downtown Oakland. In all cases, new students are projected to be much more likely to come with new below-market rate units than with market rate units. Applying these forecasts to new projected development in the Planning Area, future development may be expected to produce between 336 and 931 new students by 2035, including between 201 and 251 elementary-level students and between 67 and 84 students in both middle and high school grades. See **Table 3.6-7.**

Table 3.6-7: Estimated New Students in the Planning Area at Reasonably Foreseeable Maximum Development

	Estimated Student Generation Rate Forecasts		
	Low	*Medium*	*High*
Units			
New market-rate units	4,165	4,165	4,165
New below market-rate units (15% of total)	735	735	735
New units total	4,900	4,900	4,900
Students			
Estimated Overall Student Generation Rate[1]	0.07	0.09	0.19
New K to 5 Students (60% of total)[2]	201	251	559
New 6 to 8 Students (20% of total)[2]	67	84	186
New 9 to 12 Students (20% of total)[2]	67	84	186
New Students Total	**336**	**419**	**931**

Notes:

1. Represents an average of projected rates for market-rate and below-market rate units from 2006 Lapkoff & Gobalet Demographic Research, Inc. study. See Table 3.6-5.
2. Grade distribution based on 2006 Lapkoff & Gobalet study.

Sources: Lapkoff & Gobalet Demographic Research, Inc., 2006; Dyett & Bhatia, 2012.

Currently, there is available capacity in OUSD schools serving the Planning Area only at the elementary level, while the middle and high school levels are enrolled over capacity. The available capacity at the elementary level is not enough to accommodate projected student generation under the Low, Medium, or High forecasts above. When Planning Area charter schools are also considered, however, there is available capacity for an additional 419 elementary school students and 546 middle school students, and a shortfall of 124 high school students. This means that there is enough local school capacity to handle future K-5 enrollment under either the Low or Medium forecasts and future enrollment in grades 6-8 under any of the forecasts. Capacity at the high school level would not accommodate growth under any of the student generation forecasts. At a maximum, high schools serving the Planning Area would need

additional capacity for between 191 and 310 new students, when subtracting available capacity (see **Table 3.6-8**) from projected new students (**Table 3.6-7**). Assuming that the Medium forecast as the most likely scenario, reasonably foreseeable maximum development of the proposed Station Area Plan would only result in the need for new school capacity at the high school level. However, this need may or may not actually come to pass based on actual student generation from new housing. In addition, there is expected to be adequate capacity in OUSD schools as a whole, as discussed below.

Table 3.6-8: Available Capacity of Existing Schools Serving the Planning Area

Grade Level	*Existing or Planned Capacity*	*Enrollment (2010-2011)*	*Available Capacity*
OUSD Schools			
Elementary (K-5)	936	885	51
Middle (6-8)	606	644	(38)
High (9-12)	3,584	3,978	(394)
Charter Schools			
Elementary (K-5)	475	108	368
Middle (6-8)	750	167	584
High (9-12)	780	510	270
All Schools Serving the Planning Area			
Elementary (K-5)	1,411	993	419
Middle (6-8)	1,356	811	546
High (9-12)	4,364	4,488	(124)

Source: Oakland Unified School District (OUSD) website, http://www.ousd.k12.ca.us/ousd/site/default.asp, accessed December 17, 2009; OUSD, Downtown Education Complex Draft Initial Study/Mitigated Negative Declaration, August 2010. OUSD Website, Presentation to Oakland Unified School District, Long Range Facilities Master Plan, 2005; California Department of Education, Educational Demographics Unit, http://dq.cde.ca.gov/dataquest/, accessed September 9, 2011; Gail Greely, 2012.; Dyett & Bhatia, 2012.

School facility capacity must be considered at the citywide level. Students from the Planning Area may travel to schools outside the Planning Area and vice versa. As shown in **Table 3.6-3**, enrollment at both elementary schools serving the Planning Area has historically been higher than the number of OUSD students who live in the Planning Area. This means that more local school capacity would be available if a greater proportion of local students were enrolled at local schools. The District's enrollment policy favors neighborhood residents, facilitating an increase in this proportion.

District-wide enrollment patterns shape school facility decisions and determine actual available space. OUSD enrollment peaked in 1999 at approximately 55,000 students, and declined steadily until 2007-08. Since then, enrollment has been stable, and stood at about 46,380 students in 2011-12, including charter schools, or 37,500 not including charter schools.[12] The District's 2012 Facilities Master Plan projects that enrollment in traditional OUSD schools will remain quite steady in the coming years, rising slightly to about 38,200 by 2018-19. Existing facilities, meanwhile, are estimated to have the capacity to support between 43,520 and 69,630 students, depending on average classroom sizes ranging from 20 to 32

[12] California Department of Education website, http://www.cde.ca.gov/ds/ accessed July 9, 2012.

students per classroom, if space is used optimally. The Facilities Master Plan identifies projects for the next five to 10 years that emphasize sustainable and efficient use of resources, support for "full service community schools," facility modernization, and seismic upgrades. The District's plans indicate that there is potential to make more effective use of underutilized resources, including school facilities, and do not emphasize adding capacity.[13] The potential for reasonably foreseeable maximum development under the Plan to result in more students than can be locally accommodated is made less than significant by the projected stable enrollment across the District, the potential for a greater share of local students to take spaces at local schools, and the existence of excess school capacity outside the Planning Area, and facility improvements planned by OUSD.

The Station Area Plan reinforces the need for OUSD to continue to evaluate and update its school facilities needs in light of new development; this policy is not needed to make the potential impact less than significant.

Other Public Facilities

The Planning Area is home to both the City of Oakland's Main Library, and the Asian Branch Library with is unique collection of materials in Asian languages, in-depth Asian American collection in English, and other resources. The Laney College Library, open to Peralta students, is also in the Planning Area. The Planning Area includes community centers in both Lincoln Square Park and Chinese Garden (Harrison Square) Park, and an array of other community facilities and service organizations. Population growth in the Planning Area resulting from reasonably foreseeable maximum development may be expected to result in demand for additional community social and recreational spaces and community services such as supplemental educational services and senior services. LUTE policy N2.2 states that provision of services by civic and institutional uses should be distributed and coordinated to meet the needs of city residents. Adherence to this policy would reduce the potential impact on schools and other public facilities to less than significant.

The Station Area Plan calls for the City to consider a funding mechanism for library enhancements but the actual implementation of such a funding mechanism is not assumed. The Station Area Plan also identifies a new multi-generational community center as a priority to be sought as part of Station Area development, but this is not assumed, as it may require additional detailed study and/or regulatory action. The Plan also emphasizes the community's desire for Laney College to strengthen its connections with the community, including more workforce training and English language classes. Plan policies are not needed to make this potential impact less than significant.

Mitigation Measures

None required.

Cumulative Impact PUB-4

Future development under the proposed Plan in combination with past, present, and reasonably foreseeable maximum development in Oakland, would not result in the need for new or physically altered facilities that would result in substantial adverse physical impacts. (*Less than Significant)*

[13] Oakland Unified School District, *Facilities Master Plan,* 2012.

Development under the Station Area Plan, combined with cumulative development throughout Oakland as represented by recent, ongoing, and expected future development on the City's Active Major Projects List in Appendix B, would increase demand for police and fire protection services. In the longer term, ABAG's most recent growth estimate for Oakland projects 141,100 new residents by 2035, with new development in the Planning Area accounting for about 9 percent of the city's population growth and 5 percent of its job growth.

Fire Services

As noted under Impact PUB-1, General Plan policies require that the City maintain and enhance its capacity for fire prevention and emergency response, and develop public safety facilities in balance with land use change and population growth. The potential cumulative impact resulting from new or physically altered facilities needed to maintain fire services is less than significant with adherence to all existing regulations and General Plan policies. Given the relatively small proportion of overall city growth that will take place in the Planning Area, the Station Area Plan's contribution will not be cumulatively considerable.

Police Services

As with fire services, the impact of development in the Planning Area on police services must be seen in the context of citywide growth over the next 25 years, and more immediately in the context of active development projects citywide. The City will continue to pursue the goals and objectives of the General Plan Safety Element, and adjust and expand its police services to best meet needs at the city scale, and will adhere to all existing regulations and General Plan policies, resulting in a less than significant cumulative impact resulting from new or physically altered facilities. Meanwhile, the Station Area Plan aims to enhance public safety through design guidelines that incorporate concepts of defensible space and "eyes on the street," among other means. New development and major alterations will be required to demonstrate conformance with the intent of the Guidelines. The Plan's contribution to the potential impact will not be cumulatively considerable.

Schools

Regarding schools, as stated above under Impact PUB-3, OUSD has experienced substantially decreased enrollment over the decade, and the District's current Facilities Master Plan finds that current facilities have sufficient capacity to handle any projected growth. In addition, pursuant to Senate Bill 50 (SB 50), individual project applicants are required to pay school impact fees established to offset potential impacts from new development on school facilities. The available school capacity citywide together with recent school facility improvements in the Planning Area make the potential cumulative school demand, and the potential for a resulting impact from new or physically altered facilities, less than significant, and the Plan's contribution not cumulatively considerable.

Mitigation Measures

None required.

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3.7 Utilities and Service Systems

This section provides an overview of the existing utilities and service systems in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate. Issues addressed include water supply, wastewater treatment, stormwater capacity, solid waste, and energy supply.

Environmental Setting

Water

The Planning Area is served by existing water supplies, treatment facilities, and distributions systems, which are operated and managed by the East Bay Municipal Utility District (EBMUD). EBMUD is a publicly owned utility supplying water and wastewater treatment to parts of Alameda and Contra Costa Counties, including the Planning Area. EBMUD supplies water to nearly 1.3 million people within its estimated 325-square-mile service area. The city of Oakland comprises slightly less than one-third of EBMUD's customer base.

Water Supply Sources

The water supply system consists of a network of reservoirs, aqueducts, water treatment plants, pumping plants, and distribution facilities. Since the 1920s, EBMUD's primary source of water has been the Mokelumne River, originating from the Sierra Nevada. On an average annual basis, approximately 90 percent of the water used by EBMUD comes from the 577-square-mile protected Mokelumne River watershed. EBMUD has water rights that allow for the delivery of up to a maximum of 325 million gallons per day (MGD) or approximately 364,000 acre-feet (AF) per year, subject to the availability of the Mokelumne River runoff, senior water rights of other users upstream, and riparian rights downstream. Existing supply is currently supplemented by local runoff from Easy Bay area watersheds that is stored in five terminal reservoirs within the EBMUD service area boundaries.

Mokelumne River water is collected first at Pardee Dam and Reservoir, located 38 miles northeast of Stockton near the town of Jackson. The reservoir has a maximum capacity of nearly 198,000 acre-feet at spillway crest elevation. Camanche Dam is located 10 miles downstream from Pardee Dam on the Mokelumne River. Camanche Reservoir has A Capacity of approximately 417,000 acre-feet.

Raw (untreated) water from Pardee Reservoir travels approximately 90 miles through the Pardee Tunnel, the Mokelumne Aqueducts, and the Lafayette Aqueducts to East Bay water treatment plants and terminal reservoirs. Any water not immediately put through water treatment and distributed is stored in terminal reservoirs within the East Bay service area: Briones, Chabot, Lafayette, San Pablo, and Upper San

Leandro reservoirs. The five terminal reservoirs regulate the Mokelumne River supply in winter and spring, augment the water supply with local runoff, provide emergency sources of supply during extended drought or in the event of water supply facility outage, and provide environmental and recreational benefits to the communities of East Bay. Briones, San Pablo, and Upper San Leandro reservoirs supply water to EBMUD throughout the year; however, Chabot and Lafayette reservoirs serve primarily as emergency supply sources. Terminal reservoirs are detailed in **Table 3.7-1**.

Table 3.7-1: Terminal Reservoir Capacity and Water Sources

	Capacity		
Reservoir	*Thousand Acre-Feet*	*Billion Gallons*	*Water Sources*
Briones	60.5	19.7	Mokelumne Aqueducts, Bear Creek
Chabot	10.4	3.4	Mokelumne Aqueducts, San Leandro Creek, Upper San Leandro Reservoir, Miller Creek
Lafayette	4.3	1.4	Lafayette Creek[1]
San Pablo	38.6	12.6	Mokelumne Aqueducts, San Pablo Creek, Bear Creek, Briones Reservoir
Upper San Leandro	38.0	12.4	Mokelumne Aqueducts, San Leandro Creek and tributaries

Note:

1. The raw water line for the Mokelumne Aqueducts was disconnected from the reservoir in 1971.

Source: EBMUD Urban Water Management Plan 2010.

EBMUD has also recently completed construction of two new facilities designed to improve water supply reliability and diversify its water supply sources. The Freeport Regional Water Facility, which became operational in February 2011, enables delivery of water diverted from the Sacramento River to EBMUD in dry years, when EBMUD's total stored water supply is forecast to be below 500,000 AF on September 30 of each year.

Additionally, in 2010, the Bayside Groundwater Facility became operational. This facility was built to enable EBMUD to inject potable drinking water into the deep aquifer of the South East Bay Plain Groundwater Basin (SEBPB) during wet years for use later in times of drought. The facility consists of a new water treatment facility and associated pipelines linking the treatment plant to the injection/extraction well, a subsidence monitoring system, and a network of groundwater monitoring wells. The Bayside Groundwater Facility will supply water to EBMUD customers only when supplemental water is needed because of drought conditions.

Water Demand

Historical records of water use of each EBMUD customer category have been kept since 1975, and are differentiated between commercial, industrial, institutional, irrigation, multi-family residential and single-family residential. The single-family residential customer category is the largest water use category followed by multi-family dwelling units, commercial, industrial, institutional, and irrigation users. Approximately 63 percent of total water consumption, based on an historical average, is delivered to EBMUD's residential customers. Water consumption in the EBMUD service area has remained relatively constant in recent years even as population and accounts have grown.

Average daily system-wide demand is approximately 220 million gallons per day (MGD). EBMUD's current water demand projections are based on the 2040 Demand Study, completed in 2009, which used a land use-based method to project average annual water demands of the distribution system out to the year 2040. The 2040 Demand Study relied on the adopted General Plans of the cities and counties in the service area and on a series of meetings with local planning agencies regarding the timing and direction of future development in their respective communities. The 2040 Demand Study forecasts an unadjusted customer demand of 312 MGD for the year 2040. Assuming cumulative savings since implementation of the Water Conservation Master Plan in 1994 of 62 MGD through existing and future water conservation efforts, and 20 MGD of additional savings achieved through existing and future recycled water programs, the adjusted 2040 forecasted planning level of demand is 230 MGD. This forecasted planning level demand is in compliance with SBX7-7 mandated reduction of statewide per capita water consumption by 20 percent by the year 2020.

Water Supply Planning

As noted above, EBMUD has a total water right and capacity of 325 MGD from the Mokelumne River. However, water supply availability for a given calendar year is based on a forecast of the runoff and existing storage levels in EBMUD reservoirs. In a normal year, when EBMUD does not need to implement a Drought Management Program, the April projection of total system storage at the end of September would be 500,000 AF. As shown in **Table 3.7-2**, EBMUD can meet projected customer demands through the year 2040 during normal year conditions. However, under dry year and consecutive dry year scenarios EBMUD service area demand exceeds available supply. For 2030-level demands over consecutive dry years, there is a total supplemental supply need of 69,000 AF. EBMUD would fill this supplemental supply need by relying on short-term supplemental supply sources. In the future, for drought years beyond the 2030 planning horizon, recycled water and conservation programs will play an increasingly important role in reliable supply. In 2040, under normal year conditions, conservation is expected to offset approximately 20 percent of the needed supply, and recycled water programs are projected to offset about 6 percent. Under a multiple dry year scenario of three consecutive years, customer rationing of 15 percent and supplemental supply would account for about 25 percent of the supplemental supply need, and the shortfall to be met by developing supplemental water supply sources would be about 11 percent.

Water Treatment Facilities

EBMUD operates six water treatment plants (WTPs). These facilities are interconnected to enhance capacity reliability such that on any given day production from one water treatment plant could offset some or all of the production from another.

Table 3.7-2: EBMUD Demand and Supply Projections

	2010	*2015*	*2020*	*2030*	*2040*
Projected Demand (MGD)					
Customer Demand	251	266	280	304	312
Adjusted for Conservation	(26)	(32)	(43)	(56)	(62)
Adjusted for Recycled Water	(9)	(11)	(16)	(19)	(20)
Planning Level of Demand	***216***	***223***	***221***	***229***	***230***
Projected Available Supply and Need for Supplemental Supply (MGD)					
Normal Water Year					
Available Supply	>216	>223	>221	>229	>230
Supplemental Supply Need	0	0	0	0	0
Single Dry Water Year Multiple Dry Years – Year 1					
Available Supply	211	217	215	223	222
Customer Rationing	2%	3%	3%	3%	4%
Supplemental Supply Need	5	6	6	7	9
Multiple Dry Water Years – Year 2					
Available Supply	183	189	188	194	195
Customer Rationing	15%	15%	15%	15%	15%
Supplemental Supply Need	21	21	21	22	22
Multiple Dry Water Years – Year 3					
Available Supply	183	189	188	183	144
Customer Rationing	15%	15%	15%	15%	15%
Supplemental Supply Need	21	21	21	33	73
Three Year Drought					
Total Supplemental Supply Need (TAF)	53	54	54	69	115

Source: East Bay Municipal Utility District, 2011, Urban Water Management Plan 2010, Pages 4-9.

Transmission and Distribution Systems

Water is distributed throughout EBMUD's service area (including both Alameda and Contra Costa counties) via 4,100 miles of pipelines, 140 pumping plants, and 170 local neighborhood reservoirs having a total capacity of 830 MGD.

The Planning Area is serviced by a network of transmission and distribution lines ranging from four inches in diameter to above 24 inches. Transmission lines, ranging from 16 inches in diameter and above, traverse mainly on 5th Street and 9th Street through the Planning Area just west of Laney College. A 24-inch main travels south on Alice Street from the intersection of Alice and 9th Street and crosses into Alameda. The condition of this main is unknown, and is shown on EBMUD's base map to have been constructed in 1946. Another transmission system is established from the connections made at the intersection of Fallon Street and 7th Street, and the intersection of Oak Street and 10th Street, also traversing east-west, and is then rerouted to the northeast along 4th Avenue, and to the east along East 10th and East 11th Street.

Feeder mains (secondary mains) are those with diameters of 12 inches or greater. They traverse both easterly-westerly directions as well as from north to south. Within the Planning Area, the most notable feeder pipes are located on 7th, 12th and 13th Streets (east-west) and on Madison and Webster Streets (north-south). Distribution mains are located on every street throughout the Planning Area. The potable water system is shown in **Figure 3.7-1**.

The Planning Area is located within the Central (West-of-Hills) pressure zone. The water distribution within the pressure zone is served by gravity, and has a residual water pressure from 40 to 70 psi, depending on the elevation of a customer's service connection in a particular pressure zone. The District has over 130 pressure zones, most of which include one or more treated water storage tanks. Water flow is primarily determined by the size of a customer's service connection and the water pressure at that connection.

Sanitary Sewer (Waste water)

Collection System

The City of Oakland owns, operates, and maintains a local sanitary sewer collection system covering approximately 48 square miles, and includes over 930 miles of sanitary sewer lines, 31,000 structures and seven pump stations, serving a population of about 400,000 people throughout the City. The city's sewer collection system is divided into basins and subbasins. Each numbered subbasin encompasses a specific physical area, and its sewer flows are assigned to a single discharge point from the City's collection system into the EBMUD's interceptor lines which deliver the raw sewage to its main wastewater treatment plant (described below).

Most of the sewer system is over 60 years old, with some parts as old as 100 years. A 25-year capital improvement program, known as the Sanitary Sewer Infiltration/Inflow Correction Program, was initiated in 1987 to rehabilitate up to 30 percent of the sewer system to eliminate wet weather overflows, which are caused by rainwater and groundwater infiltrating into old, leaky sewer pipes. This program is mandated under the City's sanitary sewer discharge permit with the Regional Water Quality Control Board, and is due to complete be in 2014. Areas with the highest infiltration and inflow were identified and then targeted in order to most cost-effectively implement capacity correction and system rehabilitation. The order of priority was determined based on achieving the maximum sanitary sewer overflow reduction at

the least capital cost. The Sanitary Sewer Infiltration/Inflow Correction Program targeted the trunk mains for capacity improvements and was designed to accommodate a 20-percent increase in flow capacity in each basin.

Base maps for the Planning Area, obtained from the City of Oakland, indicate that the sewer pipes are in poor condition. Many laterals are shown as "plugged" or "abandoned." Many pipes do not have any data associated (diameter, flow direction, material, etc.). Where information is available, sewer main pipe diameters are shown to range from eight inches to 12 inches. New laterals will be constructed with new development, and this will alleviate the wet weather overflows into the sanitary sewer system and result in an increase in the capacity of the collection system.

EBMUD has two interceptor systems within the vicinity of the Planning Area. The South Interceptor system traverses east-west on 2nd Street (just outside the planning area limits). The Alameda Interceptor system begins at the pump station at the end of Alice Street. Sewage in the Planning Area is collected at this point and conveyed to the Main Wastewater Treatment Plant through this system. Capacity to handle additional demands from full build-out is unknown, but EBMUD is responsible for upgrading its infrastructure.

Wastewater Treatment

EBMUD provides sanitary sewer treatment services to approximately 640,000 people within an 83-square-mile area of Alameda and Contra Costa counties, including the city of Oakland. The City of Oakland (and eight other communities) is located in EBMUD Special District No. 1 (or, SD-1). SD-1 treats domestic, commercial, and industrial wastewater for the city of Oakland.

Wastewater is collected by a series of interceptors located at key locations throughout the city. This system is owned, operated, and maintained by EBMUD, separate from the City system described previously. The collection facilities consist of the interceptor system and collection system pumping stations. The interceptors consist of 29 miles of reinforced concrete pipes ranging from 12 inches to nine feet in diameter. They collect wastewater from approximately 1,400 miles of sewers owned and operated by the communities in the SD-1 service area. Fifteen collection system pumping stations, ranging in capacity from 0.5 to 54.7 MGD, lift wastewater throughout the interceptors as it travels to the wastewater treatment plant.

The main wastewater treatment plant (WWTP) is located in Oakland near the entrance of the San Francisco-Oakland Bay Bridge (Interstate 80). Currently, the WWTP has an average dry weather capacity of 168 MGD. During wet weather, the treatment plant can provide primary treatment for a sustainable peak flow of 320 MGD. Average annual daily flow is approximately 65 MGD.[1] Primary treatment removes floating materials, oils and greases, sand and silt, and organic solids heavy enough to settle in water.

Secondary treatment can be provided at 168 MGD (maximum). Secondary treatment biologically removes most of the suspended and dissolved organic and chemical impurities that would remove oxygen from the waters of the Bay if they were allowed to decompose naturally.

[1] East Bay Municipal Utility District, Urban Water Management Plan, 2010, p. 5-1.

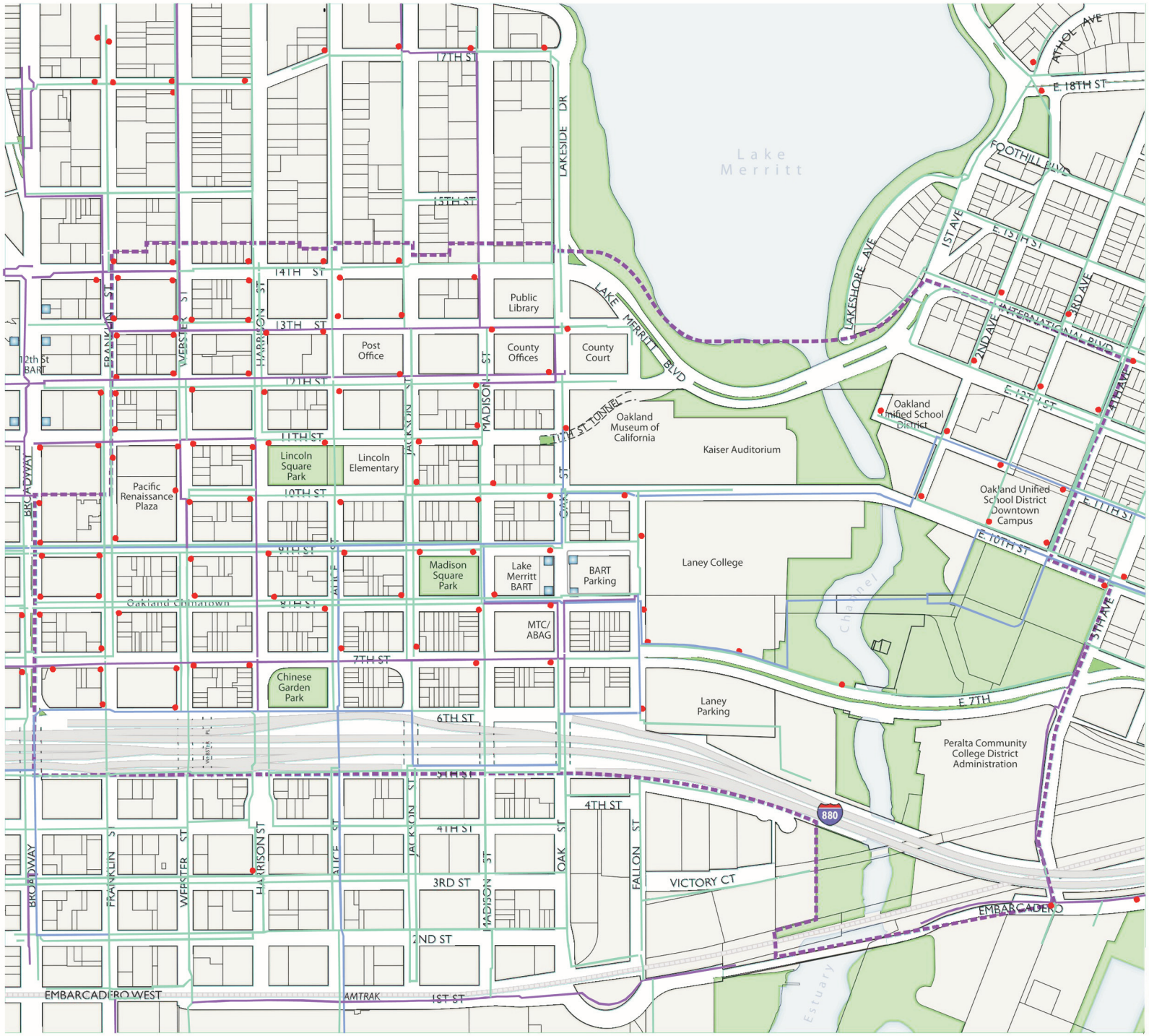

Figure 3.7-1:
Potable Water System

- 4"-10" Water Main
- 12" Water Main
- 16" or Greater Water Main
- Fire Hydrant (Approximate)

0 100 500 1000
FEET

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Waste Discharge Requirements

The U.S. Environmental Protection Agency (US EPA) and the Regional Water Quality Control Board (RWQCB) have classified the City of Oakland as a minor discharger. The RWQCB first issued a National Pollution Discharge Elimination System (NPDES) permit to EBMUD in 1976 for wet weather discharges from EBMUD's interceptors. This permit required EBMUD to eliminate the discharge of untreated overflows from its interceptors and to protect water quality in the San Francisco Bay.

In 1986, with EBMUD as the lead agency, the Wet Weather Program was initiated to improve treatment capacity for wet weather flows and reduce the amount of inflow and infiltration throughout the collection system. Since then, EBMUD has spent about $310 million on the wet weather program, which includes construction of four wet weather treatment facilities, 7.5 miles of new interceptors, and two new storage basins and pumping facilities; expansion of the main wastewater treatment plant; and elimination of two out of seven wet weather overflow structures. These new facilities accommodate an increase in peak wet weather treatment capacity from 290 MGD to 775 MGD. The City's long-range sewer improvements are anticipated to reduce peak regional flows from 1.1 billion gallons per day to 775 MGD.

In 2009, the RWQCB adopted Order No. R2-2009-0004, reissuing the EBMUD permit and prohibiting any discharge from EBMUD's three Wet Weather Facilities (WWF), located at 2755 Point Isabel Street (Richmond), 225 Fifth Avenue (Oakland), and 5597 Oakport Street (Oakland). Shortly after the adoption, the EPA and the Regional and State Water Boards filed a Federal Action (lawsuit) against EBMUD for discharges in violation of this prohibition and entered into a Stipulated Order (SO) based on EBMUD's immediate inability to comply. The SO requires EBMUD, among other things, to conduct flow monitoring on the satellite collection systems, adopt a regional private sewer lateral ordinance, implement an incentive program to encourage replacement of leaky private laterals, and develop an asset management template for managing wastewater collection systems. This program is currently in place. The City of Oakland issued an RFP in August 2012 for flow monitoring of the collection system as well. The Regional Private Sewer Lateral (PSL) Ordinance has been adopted and became effective in the city of Oakland in January 2012.

Storm Drainage

The City's storm drain system consists of about 370 miles of drainage culvert, 16,000 structures (mostly inlets, manholes, and catch basins), 40 miles of creeks and five pump stations. Like the sewer system, much of the system is old and approaching the end of its intended design life. Storm drainpipes in the City are not connected, but rather scattered through the entire City as small networks of private or public systems.

Stormwater runoff is collected from within the Planning Area through various storm drain systems and culverts, as well as from direct surface flow to the San Francisco Bay, via the Oakland Estuary or by way of Lake Merritt. Fourteen culverts and outfalls drain directly to Lake Merritt from the northern half of the Planning Area, and seven (observable) to the estuary from the southern half.

The City of Oakland is responsible for the construction and maintenance of the local storm drainage system within Oakland's public areas and roads, while the Alameda County Flood Control and Water Control District (ACFCWCD) constructs, operates, and maintains major trunk lines and flood control facilities in Oakland.

Existing infrastructure around and serving the Planning area includes pipes ranging from 10 inches to over 30 inches in diameter. Several box culverts of various sizes serve as connectors in the east-west direction towards the southern half of the Planning Area. Following the natural drainage patterns of the terrain, most storm drain pipes run north to south, with the majority of the flow direction to the south. There are several (five observable) outfalls draining directly into the San Francisco Bay.

The City makes structural improvements as necessary to ensure that the system is able to reasonably handle stormwater flow, but faces financial constraints. It is generally assumed that the storm drain system is aged and would not be able to handle increased runoff flows. New NPDES regulations in place as of July 2010 enable more stringent standards to be applied to new developments of one acre or greater, which should have the effect of minimizing the amount of stormwater that flows into the drainage system from new development. Future development in the Planning Area is not expected to generate additional runoff, and could result in a decrease in runoff as already-paved areas are replaced with Low-Impact Development site treatments accompanying new buildings. See Section 3.14, Hydrology and Water Quality, for additional detail.

Solid Waste

Non-hazardous waste in the city of Oakland is collected by Waste Management of Alameda County (WMAC), which provides curbside pickup for residential, commercial, and industrial non-hazardous waste and transports it to WMAC's Davis Street Transfer Station in the city of San Leandro. Transfer trucks haul waste to the Altamont Landfill and Resource Facility, located approximately 35 miles east of Oakland near Livermore. In 2011, Oakland disposed of approximately 292,296 tons of solid waste, 237,935 tons of which went to the Altamont Landfill and Resource Recovery Facility.[2] The Altamont Landfill has a daily permitted maximum disposal of 11,500 tons/day. The landfill has 74 percent capacity remaining and an estimated closure date of January 2025.[3] Several other landfills receive waste from the City of Oakland. Other landfills that receive more than 5,000 tons per year include Vasco Road Sanitary Landfill, Potrero Hills Landfill, Keller Canyon Landfill, and Forward Landfill, Inc.

The Integrated Waste Management Act (AB 939) requires jurisdictions to meet diversion goals of 50 percent by the year 2000. In 2006, Oakland's diversion rate was 59 percent. Beginning with the 2007 jurisdiction annual reports, diversion rates have no longer been measured. With the passage of SB 1016 in 2006, the Per Capita Disposal Measurement System, only per capita disposal rates are measured to determine if jurisdiction's efforts are meeting the intent of AB 939. Oakland's per resident disposal target rate is 5.8 pounds per person per day (PPD), and its per employee disposal target rate is 15.3 PPD. In 2011, Oakland's disposal rate was 4.1 PPD for residents and 10.0 PPD for employees, thereby meeting the City's target rates.[4]

[2] California Department of Resources Recycling and Recovery (CalRecycle), Facility/Site Summary Details, accessible at: http://www.calrecycle.ca.gov/LGCentral/Reports/DRS/Destination/JurDspFa.aspx, accessed November 17, 2012.

[3] California Department of Resources Recycling and Recovery (CalRecycle), Jurisdiction Disposal by Facility, accessible at: http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0009/Detail/, accessed September 17, 2012.

[4] California Department of Resources Recycling and Recovery (CalRecycle), Jurisdiction Review Reports, accessible at: http://www.calrecycle.ca.gov/LGCentral/Reports/Jurisdiction/ReviewReports.aspx; accessed September 17, 2012.

Electricity and Gas

Electricity and gas service in the city of Oakland is provided primarily by Pacific Gas and Electric (PG&E), which owns the gas and electrical utility supply lines. PG&E provides natural gas and electricity to approximately 15 million people throughout a 70,000-square-mile service area in Northern and Central California.[5] Throughout most of Oakland, electrical power is delivered via overhead distribution and transmission lines, and natural gas is distributed through underground piping. Both of these systems exist in the Planning Area. Undergrounding efforts have been initiated as opportunities for new developments arise. Conduits placed in "joint trenches" are reserved for electrical and gas lines.

Within the Planning Area, two potential problems exist which may impact future developments: sub-sidewalk facilities (high voltage vaults, transformers) and a high water table. PG&E staff indicates that there is adequate capacity for any immediate planned development.[6] When applications for new services are reviewed, staff may determine whether new circuits will be required, and there is typically a one-and-a-half- to two-year lead time for new developments. A new development must exceed six to eight megawatts (MW) of power requirements before exceeding current capacity (for comparison purposes, a multi-story, 400-unit residential development would consume approximately three MW). Power is generally supplied to a development site through underground vaults, ground-level vaults, or transformer pads.

The California Energy Commission (CEC) estimates that energy demand for PG&E's service area was 102,567 GWH in 2010, and forecasts that in 2020 demand will increase to 115,643 gigawatt hours (GWh) (a 13-percent increase).[7] The CEC estimates that Alameda County alone consumed 10,878 GWh of electricity in 2010, up from 11,097 GWh in 2006.[8]

The City of Oakland drafted an Energy and Climate Action Plan in 2010, with updated appendices released in 2011. The appendices include detailed tables on building energy use in Oakland, and several measures that would together reduce overall building energy use. City of Oakland 2005 baseline energy use and building energy use with the total achievable 36-percent reduction are shown in **Table 3.7-3.**

[5] Pacific Gas and Electric (PG&E). Company Info available online at: http://www.pge.com/about/company/profile/, accessed September 18, 2012.

[6] Thompson, Anthony, PG&E East Bay Division Engineer. Communication with Kimley Horn, 2010.

[7] California Energy Commission (CEC). California Energy Demand 2010-2020 Adopted Forecast, December 2009.

[8] California Energy Commission (CEC). Electricity Consumption by County, available online at: http://www.ecdms.energy.ca.gov/elecbycounty.aspx; accessed September 18, 2012.

Table 3.7-3: City of Oakland Estimated 2005 Building Energy Use

	Residential		*Commercial and Industrial*		*Total*	
	Electricity (kWh)	*Natural Gas (Therms)*	*Electricity (kWh)*	*Natural Gas (Therms)*	*Electricity (kWh)*	*Natural Gas (Therms)*
Baseline						
Electricity	671,311,906	--	1,432,075,418	--	**2,103,387,324**	**--**
Natural Gas	--	65,470,470	--	53,944,169	**--**	**119,414,639**
Applied 36% Reduction[1]						
Electricity	489,714,290	--	935,216,656	--	**1,424,930,946**	**--**
Natural Gas	--	57,958,361	--	44,310,314	**--**	**102,268,675**

Note:

1. The Applied 36 percent reduction includes a range of State and local actions identified by the City of Oakland that would reduce overall building energy use and associated GHG emissions.

Source: City of Oakland, Draft Oakland Energy and Climate Action Plan, Appendix, March 1, 2011.

REGULATORY SETTING

Federal

Federal Safe Drinking Water Act

The Safe Drinking Water Act authorizes the EPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement. If a water system does not meet minimum standards, it is the water supplier's responsibility to notify its customers.

State

California Senate Bill (SB) 221 (Government Code § 66473.7)

SB 221 requires that cities and counties demonstrate that there is sufficient water supply before they approve a tentative map for the residential development. The sufficiency of water supply can be established by obtaining a written verification from a public water supplier that confirms that total water supplies available within a 20-year projection will adequately meet projected demand associated with the proposed subdivision.

SB 221 applies to proposed residential subdivisions of more than 500 dwelling units; however, it does not apply to infill development—residential housing proposed for a site that is within or immediately contiguous to an urbanized area—or to housing projects that are exclusively for low-income households (Gov't Code § 66473.7(i)(1). As an urbanized area,[9] SB 221 does not apply to the Planning Area.

[9] Although SB 221 does not provide a definition of "urbanized area," Oakland meets the definition of such contained in other statutes/regulations (Health & Safety Code §33320.1; CEQA Guidelines 1515387).

SB 610

SB 610 requires water supply assessments (WSAs) for certain types of projects, as defined by Water Code S10912, that are subject to CEQA. SB 610 applies to:

- Residential Developments of more than 500 units;
- Shopping centers or business establishments employing more than 1,000 persons or containing more than 500,00 square feet of floor area;
- Commercial office buildings employing 1,000 persons or containing more than 250,000 square feet of floor area;
- Hotels or motels containing more than 500 rooms;
- Industrial plants occupying more than 40 acres or containing more than 650,000 square feet; or
- Any combination of the above that results in equivalent water consumption.

SB 610 Requires that before approving any projects that fall within the categories above, cities and counties must request a water supply assessment from the water supplier most likely to serve the project and must include the water supply assessment in any CEQA environmental documents.

Additionally, the water supply assessment must evaluate if the total water supplies during a 20-year projection will meet the projected water demand associated with the proposed Plan (Water Code §§. 10912(a), 10911(b), 10910(b), and 10910(c)(4)).

San Francisco Bay Regional Water Quality Control Board

The San Francisco Bay Regional Water Quality Control Board (RWQCB) governs many of the regulations associated with utilities, specifically potable water, sanitary sewers, storm drains, and recycled water. RWQCB has the authority to enforce water quality regulations found in the Clean Water Act based on the Porter-Cologne Water Quality Control Act. Wastewater discharges are guided by NPDES (National Pollutant Discharge Elimination System) permits granted by the RWQCB. The city's storm drain outfalls operate under NPDES permits granted by the RWQCB.

East Bay Municipal Utility District (EBMUD)

EBMUD is the regional entity formed to supply water and wastewater treatment to Alameda County and parts of Contra Costa County. The district provides drinking water to over 1.3 million customers and implements programs to conserve water and increase water supply. The district also manages several reservoirs in the two-county region.

EBMUD, Urban Water Management Plan

EBMUD's 2010 Urban Water Management Plan (UWMP) documents the district's planning efforts to ensure adequate water supplies to meet existing and future demands for water. The UWMP presents forecasted supplies and demands up to the year 2040 and describes the District's recycled water and conservation programs. The UWMP also describes what happens in a water shortage and discusses drought management programs.

California Department of Resources Recycling and Recovery

The California Department of Resources Recycling and Recovery (CalRecycle) establishes the statewide regulations for solid waste collection and disposal, including State-mandated diversion goals. Regulations authored by CalRecycle (Title 14) were integrated with related regulations adopted by the State Water Resources Control Board pertaining to landfills (Title 23, Chapter 15) to form Title 27 of the California Code of Regulations.

Assembly Bill (AB) 939, California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989, or AB 939, mandated that all jurisdictions in the state divert at least 50 percent by 2000 through source reduction, composting, and recycling activities The Act gives the highest priority to source reduction and defines it as the act of reducing the amount of solid waste generated in the first place. Recycling and composting are given the next highest priority. The Act specifies that all other waste that is not diverted be properly and safely disposed of in a landfill or through incineration. The California Integrated Waste Management Act also mandates that each jurisdiction adopt a Source Reduction and Recycling Element (SRRE), which specifies how the community will meet the 50-percent goals set forth in the Act. Each community is also required to take measures to reduce solid waste generation and to provide for the safe disposal of special and hazardous wastes.

The California Solid Waste Reuse and Recycling Access Act

Subsequent to the California Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Reuse and Recycling Access Act of 1991 directs the California Department of Resources Recycling and Recovery to draft a model ordinance relating to adequate areas for collecting and loading recyclable materials in development projects.

Senate Bill (SB) 1016, The Solid Waste Disposal Measurement System Act

The Solid Waste Disposal Measurement System Act of 2008, SB 1016, amended the California Integrated Waste Management Act procedures for measuring and reporting diversion requirements. Starting in 2009, jurisdictions are required to calculate the 50-percent diversion requirement in a per capita disposal rate equivalent. CalRecycle determines the per capita disposal rate equivalent for each jurisdiction.

Alameda County Waste Reduction and Recycling Initiative (Measure D)

In addition to AB 939, the 1990 Voter Initiative Measure D (Alameda County Waste Reduction and Recycling Initiative) mandates all cities in Alameda County to divert 75 percent of their solid waste from landfills by the year 2010.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates Investor-Owned Utilities (IOUs) including those that offer electric, natural gas, steam, and petroleum service to consumers. The CPUC regulates both electric and natural gas rates and services provided by these utilities including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering, and billing.

Title 24

Buildings constructed after June 30, 1977, must comply with standards identified in Title 24 of the California Code of Regulations. Title 24, established by the California Energy Commission (CEC) in 1978, requires the inclusion of state-of-the-art energy conservation features in building design and construction, including the incorporation of specific energy conserving design features, use of non-depletable energy resources, or a demonstration that buildings would comply with a designated energy budget.

California Green Building Standards Code (CALGreen, 2010)

CALGreen is the green building code specific to the state of California, adopted in January 2010 and effective as of January 2011 for residential and non-residential new construction projects. This code aims to improve the safety, health, and general welfare of the public in California by reducing the negative impacts of construction and buildings on the environment, and encouraging sustainable construction practices. Through the promotion of sustainable planning and design, energy efficiency, water efficiency and conversion, materials conversion, resources efficiency, and environmental quality, CALGreen aims to support a high standard for green buildings in California and lower the overall impacts that buildings impose on the environment. The code is composed of mandatory measures that must be implemented by local jurisdictions as well as voluntary measures called Tiers.

Local Plans and Policies

Green Building Ordinance

The Green Building Ordinance was adopted by the City of Oakland in 2005, in conjunction with the Sustainable Communities Initiative of 1998, in order to maintain high standards of green development and new construction throughout the City. This ordinance requires green performance in major civic projects and provides policies to assist private development projects in improving green performance.

In October of 2010, the city adopted the Green Building Ordinance for Private Development Projects. The ordinance affects a wide range of projects from new construction of single- and multi-family residential as well as non-residential projects, additions and alterations, modifications or demolition of historic resources, construction of affordable housing and mixed-use projects, as well as projects requiring a landscape plan. Projects that are affected based on defined thresholds in the ordinance include:

- Residential and non-residential new construction, additions and alterations;
- Removal of an historic resource and new construction;
- Historic residential and non-residential additions and alterations;
- Mixed use construction; and
- Construction requiring a landscape plan

Certain types of projects are required to receive certification through a non-governmental green rating agency, including:

- All new residential construction and residential additions or alterations over 1,000 square feet, certified through Build It Green's GreenPoint Rated program.
- All new non-residential construction and non-residential additions or alterations.

In addition to Oakland's local Green Building Ordinance, the State of California recently adopted the new Green Building Code known as CALGreen (described above). Both the City's local ordinance and CALGreen are now in effect.

City of Oakland Municipal Code

Chapter 15.34 of Oakland's Municipal Code addresses Construction and Demolition Debris Waste Reduction and Recycling Requirements. This Chapter requires projects to submit a Construction and Demolition Waste Reduction Plan for review and approval. As a result, construction-related truck traffic, which primarily uses diesel fueled engines, would be reduced, since demolition debris that would otherwise have been hauled off-site would instead be reused on-site. In addition, reuse of concrete, asphalt, and other debris would reduce the amount of material introduced to area landfills.

- *Waste Reduction and Recycling* – The City of Oakland has implemented a residential recycling program increasing collection of yard trimmings and food waste. This program has increased total yard trimming collections by 46 percent compared to 2004, and recycling tonnage by 37 percent. The City has also adopted Construction and Demolition Recycling requirements, described above.
- *Polystyrene Foam Ban Ordinance* – In June 2006, the Oakland City Council passed the Green Food Service Ware Ordinance (Ordinance 14727, effective as of January 1, 2007), which prohibits the use of polystyrene foam disposable food service ware and requires, when cost neutral, the use of biodegradable or compostable disposable food service ware by food vendors and City facilities.

Zero Waste Resolution

In March 2006, the Oakland City Council adopted a Zero Waste Goal by 2020 Resolution (Resolution 79774 C.M.S.), and commissioned the creation of a Zero Waste Strategic Plan to achieve the goal. Oakland's Zero Waste Goal is to cut the City's waste disposal down to 40,000 tons per year, which would be a 90-percent reduction of the City's waste in 2005. Oakland's Zero Waste Strategic Plan establishes five strategies to meet this goal, which include traditional recycling programs as well as system redesign solutions for product waste, as well as policy and regulatory changes:

- Expand and Improve Local and Regional Recycling and Composting
- Develop and Adopt New Rules and Incentives to Reduce Waste Disposal
- Preserve Land for Sustainable Development and Green Industry Infrastructure
- Advocate for Manufacturer Responsibility for Product Waste, Ban Problem Materials
- Educate, Promote, and Advocate a Zero Waste Sustainability Agenda

City of Oakland General Plan

The Oakland General Plan includes the following policies related to the provision of utilities and infrastructure:

Land Use and Transportation Element (LUTE)

Policy I/C 1.9 **Locating Industrial and Commercial Area Infrastructure.** Adequate public infrastructure should be ensured within existing and proposed industrial and commercial areas to retain viable uses; improve the marketability of existing, vacant or underutilized sites; and encourage future use and development of these areas with activities consistent with the goals of the General Plan.

Policy T5.3 **Prioritize Infrastructure Improvements.** Infrastructure improvements should be prioritized to prevent deterioration of existing infrastructure.

Open Space, Conservation and Recreation Element (OSCAR)

Policy CO-4.1 **Water Conservation.** Emphasize water conservation and recycling strategies in efforts to meet future demand.

Policy CO 4.3 **Use of Reclaimed Water.** Promote the use of reclaimed wastewater for irrigating landscape medians, cemeteries, parks, golf courses, and other areas requiring large volumes of non-potable water.

Housing Element

Policy 7.4 **Minimize Environmental Impacts from New Housing.** Work with developers to encourage construction of new housing that, where feasible, reduces the footprint of the building and landscaping, preserves green spaces, and supports ecological systems.

Action 7.4.2 **Water Consumption.** Encourage, where feasible, best practices in the installation of water-efficient technologies, greywater systems and the use of water collected on-site. In affordable housing developments, this will reduce utility bills, freeing up more resources to pay rent or a mortgage.

Action 7.4.3 **Waste Reduction.** Encourage, where feasible, multi-family developments to comply with the City's Zero Waste Plan.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-19. Underground Utilities

Prior to issuance of a building permit

The project applicant shall submit plans for review and approval by the Building Services Division and the Public Works Agency, and other relevant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other wiring, conduits, and similar

facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage, and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.

SCA-36. Waste Reduction and Recycling

The project applicant will submit a Construction & Demolition Waste Reduction and Recycling Plan (WRRP) and an Operational Diversion Plan (ODP) for review and approval by the Public Works Agency.

Prior to issuance of demolition, grading, or building permit

Chapter 15.34 of the Oakland Municipal Code outlines requirements for reducing waste and optimizing construction and demolition (C&D) recycling. Affected projects include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3), and all demolition (including soft demo).The WRRP must specify the methods by which the development will divert C&D debris waste generated by the proposed Plan from landfill disposal in accordance with current City requirements. Current standards, FAQs, and forms are available at www.oaklandpw.com/Page39.aspx or in the Green Building Resource Center. After approval of the plan, the project applicant shall implement the plan.

Ongoing

The ODP will identify how the project complies with the Recycling Space Allocation Ordinance, (Chapter 17.118 of the Oakland Municipal Code), including capacity calculations, and specify the methods by which the development will meet the current diversion of solid waste generated by operation of the proposed Plan from landfill disposal in accordance with current City requirements. The proposed program shall be in implemented and maintained for the duration of the proposed activity or facility. Changes to the plan may be re-submitted to the Environmental Services Division of the Public Works Agency for review and approval. Any incentive programs shall remain fully operational as long as residents and businesses exist at the project site.

SCA-75. Stormwater Pollution Prevention Plan (SWPPP)[10]

Prior to and ongoing throughout demolition, grading, and/or construction activities

The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs); and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit to the Building Services Division a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP shall start with the commencement of construction and

[10] These Development Standards apply to ALL projects that disturb one (1) acre or more of surface area.

continue through the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

SCA-78. Site Design Measures for Post-Construction Stormwater Management[11]

Prior to issuance of building permit (or other construction-related permit)

The project drawings submitted for a building permit (or other construction-related permit) shall contain a final site plan to be reviewed and approved by Planning and Zoning. The final site plan shall incorporate appropriate site design measures to manage stormwater runoff and minimize impacts to water quality after the construction of the project. These measures may include, but are not limited to, the following:

a. Minimize impervious surfaces, especially directly-connected impervious surfaces;

b. Utilize permeable paving in place of impervious paving where appropriate;

c. Cluster buildings;

d. Preserve quality open space; and

e. Establish vegetated buffer areas.

Ongoing

The approved plan shall be implemented and the site design measures shown on the plan shall be permanently maintained.

SCA-80. Post-Construction Stormwater Management Plan[12]

Prior to issuance of building permit (or other construction-related permit)

The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a

[11] These Development Standards apply to ALL projects that create or replace LESS than 10,000 square feet of impervious service or involve construction of one single-family home. Exceptions to this standard include the following:

a. Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with the street.

b. Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and

c. Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.

[12] These Development Standards apply to ALL projects 1) where the application for a zoning permit was deemed complete on or after February 15, 2005 that create or replace one (1) acre or MORE of impervious surface or 2) where the application for a zoning permit was deemed complete on or after August 15, 2006 that create or replace 10,000 square feet or more of impervious surface. Exceptions include the following:

a. Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with the street.

b. Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and

c. Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.

completed Construction-Permit-Phase Stormwater Supplemental Form to the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater management plan, for review and approval by the City, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

a. The post-construction stormwater management plan shall include and identify the following:

    1. All proposed impervious surface on the site;

    2. Anticipated directional flows of on-site stormwater runoff; and

    3. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and

    4. Source control measures to limit the potential for stormwater pollution;

    5. Stormwater treatment measures to remove pollutants from stormwater runoff; and

    6. Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit.

b. The following additional information shall be submitted with the post-construction stormwater management plan:

    1. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and

    2. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable of removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project.

All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

Prior to final permit inspection

The applicant shall implement the approved stormwater management plan.

SCA-91. Stormwater and Sewer[13]

Prior to completing the final design for the project's sewer service

Confirmation of the capacity of the city's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed Plan. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed Plan. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development resulting from the Housing Element would be infill development in built-up areas or redevelopment of existing sites. The Housing Element EIR determined that compliance with General Plan policies found in the LUTE Element, LUTE EIR Mitigation Measure D.2-2, and SCA 91: Stormwater and Sewer, would ensure that impacts on wastewater treatment standards are less than significant. Impacts related to stormwater drainage capacity would be less than significant, and compliance with General Plan policies in the OSCAR Element; Policy T5.3 from the LUTE Element; SCA 78: Site Design Measures for Post-Construction Stormwater Management; and SCA 80: Post-Construction Stormwater Management Plan would further reduce impacts.

The Housing Element EIR also determined that compliance with General Plan policies from the OSCAR Element, and Housing Element Action 7.4.2, along with green building or LEED certification objectives could reduce impacts on potable water demands to less than significant. In terms of supply infrastructure and conveyance facilities, EBMUD manages the regional conveyance system used to transport potable water supplies to each jurisdiction and customers in its service area. EBMUD also manages and maintains all the WTPs; any improvements or expansions are ultimately the responsibility of EBMUD; therefore, impacts to facilities as a result of implementation of the Housing Element were determined to be less than significant. As stated previously, EBMUD demand surveys conducted during the preparation of its WSMP 2040 accounted for demands associated with buildout of the Housing Element along with demands throughout its service area. Moreover, EBMUD has adequate supplies from its diversions on the Mokelumne River, coupled with supplies from the FRWP, to serve demands under all hydrologic conditions; therefore, cumulative impacts to water supplies are less than significant.

Impacts related to solid waste were determined to be less than significant, and compliance with LUTE EIR Mitigation Measures D.4-1a, D.4-1b, and D.4-1c, and Actions from the Housing Element, as well as

[13] These Development Standards apply to ALL projects that involve a new connection to the City's stormwater and sewer system.

Chapter 15.34 of the Municipal Code and SCA 36: Waste Reduction and Recycling, would further reduce impacts. There are adequate supplies of gas and electricity for residential growth planned under the Housing Element. Furthermore, energy conservation measures under Title 24 and the City's Green Building Guidelines would minimize future energy demand. Impacts related to energy would be less than significant with compliance with various General Plan and Municipal Code requirements, as well as SCAs that reduce impacts. Also, compliance with actions of the Housing Element would further reduce impacts.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact on the environment if it would:

- Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;
- Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Exceed water supplies available to serve the proposed Plan from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects**;**
- Result in a determination by the wastewater treatment provider which serves or may serve the Planning Area that it does not have adequate capacity to serve the proposed Plan's projected demand in addition to the providers' existing commitments, and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Be served by a landfill with insufficient permitted capacity to accommodate the proposed Plan's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Violate applicable federal, state, and local statutes and regulations related to solid waste;
- Violate applicable federal, state and local statutes and regulations relating to energy standards (per state CEQA guidelines); or
- Result in a determination by the energy provider which serves or may serve the Planning Area that it does not have adequate capacity to serve the proposed Plan's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

METHODOLOGY AND ASSUMPTIONS

This section discusses how the proposed Lake Merritt Station Area Plan may impact public services and utilities. Because specific details of future individual projects within the Planning Area are not known at this time, the discussion focuses on the overall impact of the proposed Station Area Plan and the estimated development on identified opportunities sites. Prior to approval of any future individual project

within the Planning Area, the project would be subject to project-level environmental review as appropriate and necessary, as well as the SCAs and the goals and policies of the City's General Plan.

SUMMARY OF IMPACTS

Implementation of the proposed Station Area Plan would include new development of high-density or high-intensity urban uses in the Planning Area. Impacts related to provision of utilities and service systems would be less than significant, as described below.

Impact UTL-1 – Wastewater Treatment Requirements

Wastewater from development of the Area Plan will not contain any unusual pollutants and will be within the existing capacity of EBMUD's treatment plant and therefore will not impact EBMUD's ability to meet RWQCB treatment standards, resulting in a less than significant impact.

Impact UTL-2 – Stormwater Drainage Facilities

The proposed Plan is not anticipated to change stormwater flows substantially due to the existing developed nature of the area. Based on the urbanized nature of the Planning Area and required SCA, impacts on stormwater drainage facilities are considered less than significant.

Impact UTL-3 – Water Supply

Based on analysis conducted by EBMUD, as well as City and proposed Plan policies that promote water conservation and use of recycled water, implementation of the proposed Plan would not exceed water supplies available to serve the proposed Plan, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects. Therefore, impacts on water supply are considered less than significant.

Impact UTL-4 – Wastewater Treatment Facilities

Preliminary analysis indicates that the additional wastewater generated by the proposed Plan will be adequately handled by the existing sanitary sewer system. However, there are two locations where replacing existing pipes may be required because of limited capacity in a specific location where the pipes have very shallow slopes limiting the capacity in that pipe section.

EBMUD has indicated that their Main Wastewater Treatment Plan (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to treat the proposed wastewater flows from projects within the Planning Area. However, wet weather flows are a concern; EBMUD is addressing this concern and specific implications for the Planning Area are not known at this time. Implementation of SCA 91, Stormwater and Sewer, would reduce impacts on wastewater treatment facilities to less than significant.

Impact UTL-5 – Landfills and State Waste Diversion Requirements

The City of Oakland is served by multiple landfills. Together, these landfills have substantial capacity through the planning horizon. Further, the Station Area Plan would not impede the ability of the City to meet the waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. Projects facilitated by the proposed Plan would be subject to SCA 36: Waste Reduction and Recycling. Therefore, development facilitated by the proposed Station Area Plan would have a less than significant impact on solid waste services and landfill capacity.

Impact UTL-6 – Energy Standards and Provision

The proposed Station Area Plan would facilitate projects that would result in an incremental increase in the demand for gas and electrical power. However, the level of public energy required for this new development would not be expected to violate applicable federal, state, and local statutes and regulations relating to energy standards, or exceed PG&E's service capacity, or require new or expanded facilities. Projects would be required to conform to Title 24 and City and State Green Building codes. As a result, impacts related to energy are considered less than significant. In addition, energy use related to transportation would be reduced through implementation of proposed Plan policies that aim to shift mode share to non-energy intensive modes of travel.

Cumulative Impact UTL-7

Implementation of the proposed Station Area Plan, combined with past, present, and reasonably foreseeable maximum development within and around the Planning Area, would result in a less than significant impact on demand for utilities services.

IMPACTS

Impact UTL-1

Development of the Plan Area as proposed would not exceed the wastewater treatment requirements of the San Francisco Regional Water Quality Control Board. ***(Less than Significant)***

Wastewater from development of the Area Plan will not contain any unusual pollutants and will be within the existing capacity of EBMUD's treatment plant and therefore will not impact EBMUD's ability to meet RWQCB treatment standards. As noted in the Environmental Setting section, the WWTP has an average dry weather capacity of 168 MGD and wet weather capacity for a peak flow of 320 MGD. According to the 2010 Urban Water Management Plan, average annual daily flow is far below this capacity at approximately 65 MGD.

Mitigation Measures

None required.

Impact UTL-2

The proposed Plan would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. ***(Less than Significant)***

Development within the Planning Area will continue to connect and discharge stormwater runoff to the city's existing storm drain lines in the adjacent streets. Overall stormwater runoff from the Planning Area is not anticipated to change substantially due to the existing developed nature of the area. The Planning Area is predominantly impervious in its present condition and will remain so with proposed development. Development under the proposed Station Area Plan would not construct any new stormwater infrastructure and would tie into existing facilities. While construction of bulbouts and sidewalk expansion may require the relocation of some drain inlets, the capacity of the existing system would not be impacted. City of Oakland SCA 91: Stormwater and Sewer, would require the project applicant to

construct the necessary stormwater infrastructure improvements to accommodate the proposed Plan. Further, SCA 80 requires compliance with Provision C.3 of the Alameda Countywide Clean Water Program. This provision regulates post-construction stormwater runoff. Finally, new development in the Planning Area will also be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) as described under SCA 75. These provisions, together with the existing urbanized nature of the Planning Area, indicate that implementation of the proposed Station Area Plan would result in a less than significant impact on stormwater drainage facilities. Additional Plan policies IU-4, IU-5, and IU-6 would reinforce stormwater runoff controls, encourage best practices in stormwater management from private development, and call on the City to design streetscape improvements to adequately handle runoff. These policies are not needed to make the potential impact less than significant.

Mitigation Measures

None required.

Impact UTL-3

The proposed Plan would not exceed water supplies available to serve the proposed Plan from existing entitlements and resources, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects. ***(Less than Significant)***

EBMUD's water supply is adequate to meet existing and projected demand through 2040 with successful implementation of water recycling and conservation programs. EBMUD adopted an updated long-term Water Supply Management Program (WSMP) in October 2009 and an Urban Water Management Plan in 2010 which included growth projections. The WSMP analysis found that a combination of existing system reservoirs, recycled water and conservation measures would meet water demand during wet and normal years and up to two years of drought. For longer droughts, a Preferred Portfolio of water management strategies was formulated including rationing of up to 15 percent, aggressive conservation resulting in 39 MGD by 2040, and recycling water resulting in 11 MGD that would meet demand during drought years.

Implementation of the proposed Station Area Plan will increase retail development by about 404,000 square feet; office space by 1,229,000 square feet; and add 4,900 residential units. Based on a water demand factor of 200 gallons per day (gpd) per 1,000 square feet of retail and office uses and 350 gpd per residential unit, the net increase with development will generate an estimated additional water demand of approximately 11.8 million gallons per day. However, the reasonably foreseeable maximum development under the proposed Plan is consistent with Oakland's General Plan. As described above, EBMUD has identified adequate water to meet projected demand through 2040 based on service area General Plans. Further, individual development projects would be subject to environmental review as necessary and appropriate, and pursuant to Sections 10910 through 10915 (SB610) of the California Water Code, projects that exceed the threshold for a Water Supply Assessment (WSA) would prepare such an assessment or request EBMUD to prepare such an assessment. The Lake Merritt Station Area Plan meets the threshold for a required assessment of water supply, pursuant to Sections 10910-10915 (SB-610) of the California Water Code. EBMUD completed this assessment in January 2013, finding that the water demands for the Lake Merritt Station Area Plan are accounted for in EBMUD's 2010 Urban Water Management Plan. See Appendix F.

Additional water savings will be realized in the Planning Area through water recycling and conservation programs. The Planning Area is located within and around EBMUD's East Bayshore recycled water pipeline infrastructure with several facilities already utilizing recycled water for irrigation purposes. In addition, individual projects will be subject to CALGreen, which requires a 20-percent savings in potable water through use of plumbing fixtures.

Overall, based on EBMUD's WSA, regional planning efforts, water recycling and conservation measures required by CALGreen, the impact on water supplies and facilities would be less than significant.

Per proposed Plan policy IU-3, the Plan proposes to utilize recycled water to irrigate new open space areas. Proposed policy IU-7 calls for the City to use native and drought-resistant landscaping. These policies support existing regulations but are not necessary to reduce this potential impact to a less than significant level.

Mitigation Measures

None required.

Impact UTL-4

The increased generation of wastewater by the proposed Plan would not result in a determination by the wastewater treatment provider which serves or may serve the proposed Plan that it does not have adequate capacity to serve the proposed Plan's projected demand in addition to the providers' existing commitments and require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. ***(Less than Significant)***

The Planning Area is currently served by existing sewer infrastructure located beneath surrounding roadways and is located in six Basins as identified by the City of Oakland. Based on a wastewater generation rate of 100 gpd per 1,000 square feet for retail uses, 200 gpd per 1,000 square feet for office uses, and 200 gpd per residential unit (for a two-bedroom apartment or condominium), the net increase of wastewater generated by development facilitated by the proposed Plan will be approximately 1.27 MGD. Preliminary analysis indicates that the additional wastewater generated by the proposed Plan will be adequately handled by the existing sanitary sewer system. However, there are two locations where replacing existing pipes may be required because of limited capacity in a specific location where the pipes have very shallow slopes limiting the capacity in that pipe section. SCA 91: Stormwater and Sewer, would require that the project applicant confirm the capacity of the surrounding sewer basin and, if necessary, construct infrastructure improvements to accommodate the project site. This condition also includes the payment of sewer mitigation fees required by the City's Public Works Agency.

EBMUD has indicated that their Main Wastewater Treatment Plan (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to treat the proposed wastewater flows from projects within the Planning Area. However, wet weather flows are a concern. In January 2009, the RWQCB issued an order prohibiting further discharges from EBMUD's Wet Weather Facilities and in July 2009, a Stipulated Order for Preliminary Relief issued by EPA, the SWRCB and RWQCB became effective. This order requires EBMUD to begin work that will identify problem infiltration/inflow areas, begin to reduce infiltration/inflow through private sewer lateral improvements, and lay the groundwork for future efforts to eliminate discharges from the Wet Weather Facilities. Currently there is insufficient information to

forecast how these changes will impact allowable wet weather flows in the individual collection system subbasins contributing to the EBMUD wastewater system. It is reasonable to assume that a new regional wet weather flow allocation process may occur in the East Bay, but the schedule for implementation of any new flow allocations has not yet been determined. In the meantime, EBMUD recommends new projects (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines, to reduce infiltration/inflow, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent infiltration/inflow to the maximum extent feasible.[14] These measures are addressed in the City of Oakland through implementation of SCA 91: Stormwater and Sewer, which also notes that "improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed project." Existing regulations reduce this potential impact to less than significant. The proposed Plan includes a policy (IU-2) reinforcing the requirement for sewer lines to be upgraded in specific locations, but this is not required to reduce the impact to less than significant.

Mitigation Measures

None required.

Impact UTL-5

Implementation of the proposed Plan would not be served by a landfill with insufficient permitted capacity to accommodate the proposed Plan's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects, or cause the City to violate applicable federal, state, and local statutes and regulations related to solid waste. ***(Less than Significant)***

The proposed Station Area Plan could facilitate projects that would generate construction/demolition debris. In addition, the residential and employee population increase facilitated by the proposed Station Area Plan would increase demand for solid waste services.

Table 3.7-4 details the landfill capacity of the five landfills most heavily used by the City of Oakland. Together, these landfills have substantial capacity through the planning horizon. Therefore, the proposed Plan would be served by a landfill with sufficient permitted capacity to accommodate the proposed Plan's solid waste disposal needs, and would not require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

Table 3.7-4: Capacity of Landfills Serving the City of Oakland

Facility	*Remaining Capacity (Cubic Yards)*	*Total Permitted Capacity (Cubic Yards)*	*Percent Capacity Remaining*	*Permitted Throughput (tons/day)*	*Estimated Closure Year*
Altamont Landfill & Resource Recovery	45,720,000	62,000,000	74%	11,500	2025

[14] East Bay Municipal Utility District (EBMUD). Letter in response to the Notice of Preparation of a Draft Environmental Impact Report on the Lake Merritt Station Area Plan, dated March 26, 2012.

Vasco Road Sanitary Landfill	9,870,704	32,970,000	30%	2,250	2019
Potrero Hills Landfill	13,872,000	83,100,00	17%	4,330	2048
Keller Canyon Landfill	63,408,410	75,018,280	85%	3,500	2030
Forward Landfill, Inc	23,700,000	51,040,000	46%	8,668	2020

Source: California Department of Resources Recycling and Recovery (CalRecycle), http://www.calrecycle.ca.gov/SWFacilities/Directory/39-AA-0015/Detail/, accessed November 17, 2012.

Further, the Station Area Plan would not impede the ability of the City to meet waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. Projects facilitated by the proposed Plan would be subject to SCA 36: Waste Reduction and Recycling, which requires the preparation of an Operational Diversion Plan to identify how projects would comply with the City's Recycling Space Allocation Ordinance (Chapter 17.118 OMC).

Therefore, development facilitated by the proposed Station Area Plan would have a less than significant impact on solid waste services and landfill capacity.

Mitigation Measures

None required.

Impact UTL-6

Implementation of the proposed Plan would not violate applicable federal, state, and local statutes and regulations relating to energy standards; nor result in a determination by the energy provider which serves or may serve the proposed Plan that it does not have adequate capacity to serve projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects. ***(Less than Significant)***

The proposed Station Area Plan would facilitate projects that would result in an incremental increase in the demand for gas and electrical power. However, the level of public energy required for this new development would not be expected to violate applicable federal, state and local statutes and regulations relating to energy standards or exceed PG&E's service capacity or require new or expanded facilities.

Projects facilitated by the proposed Station Area Plan would comply with all standards of Title 24 of the California Code of Regulations, which requires construction projects to incorporate energy-conserving design measures into projects. Further, under CALGreen, which the City has adopted, a green building should achieve at least a 15-percent reduction in energy usage when compared to Title 24. All individual projects facilitated by the proposed Station Area Plan would undergo project-specific environmental review, as needed and appropriate, and any projects requiring extension, relocation, or increases in PG&E services would be required to undergo review by the utility.

With adherence to existing regulations, impacts related to energy are considered less than significant.

In addition, significant energy use is consumed through use of transportation. The proposed Plan recommends many pedestrian and bicycle improvements in order to shift mode share to non-energy-

intensive modes of travel. Proposed Station Area Plan policies related to reducing transportation energy use coincide closely with policies that implement Clean Air Plan Bay Area 2010 Clean Air Plan, which are outlined in detail in Section 3.3: Air Quality, Table 3.3-5. These Plan policies are not necessary to reduce the potential impact to less than significant.

Mitigation Measures

None required.

Cumulative Impact UTL-7

Implementation of the proposed Plan, combined with past, present, and reasonably foreseeable maximum development, within and around the Planning Area, would not contribute to a significant adverse cumulative impact on utilities services. (*Less than Significant*)

The geographic context for cumulative impacts for Utilities and Service Systems includes all areas of the city since utilities are provided citywide as well as regionally. EBMUD's water supply is adequate to meet existing and projected demand through 2040 under normal conditions and up to two years under drought conditions. EBMUD is implementing water conservation and recycling programs and developing water supply projects to manage future water supply needs. The water demand projections used by EBMUD are derived from a land-use based demand forecast that reflects Oakland's development plans and policies. No significant additional facilities or expansion needs beyond those already underway or planned will be expected to be needed to serve the development as proposed in the Station Area Plan. In addition, the City of Oakland coordinates with EBMUD in the review of development proposals to ensure compliance with California Fire Code fire flow and pressure requirements. Therefore, cumulative impacts on water supply and water treatment and distribution systems will be less than significant.

Similarly, EBMUD's and the City of Oakland's planning for wastewater capacity include cumulative development. EBMUD's projections for future wastewater flows and treatment incorporate growth pursuant to service area wide growth projections. Cumulative impacts related to wastewater will be less than significant.

Development facilitated by the proposed Plan will not result in an increase in the total area of impervious surfaces and is not anticipated to result in generation of additional stormwater runoff. Therefore the proposed Plan will have no impact on the off-site stormwater drainage system and will not contribute to potential cumulative drainage impacts.

Development facilitated by the proposed Station Area Plan would not result in a significant impact related to solid waste or energy services. The development facilitated by the proposed Station Area Plan would not combine with, or add to, any potential significant adverse impacts on the provision of solid waste or energy services that may be associated with other cumulative development. In addition, past projects have been, and present and reasonably foreseeable maximum development will be, subject to SCAs 36: Waste Reduction and Recycling, 91: Stormwater and Sewer, 75: Stormwater Pollution Prevention Plan, and 80: Post-construction Stormwater Management Plan.

Based on the information in this section and for the reasons summarized above, the development facilitated by the proposed Station Area Plan would not contribute to any significant adverse cumulative

impacts on utilities or service systems when considered together with past, present, and reasonably foreseeable maximum development.

Mitigation Measures

None required.

3.8 Cultural and Historic Resources

This section provides an overview of the existing cultural and historic resources in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts on historic and cultural resources that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate.

Environmental Setting

Definitions

Archaeological Resources

Archaeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

Contemporary Native American Resources

Contemporary Native American resources, also called ethnographic resources, can include archaeological resources, rock art, and the prominent topographical areas, features, habitats, plants, animals, and minerals that contemporary Native Americans value and consider essential for the preservation of their traditional values.

Historic Resources

Historic resources are standing structures of historic or aesthetic significance. Architectural sites dating from the Spanish Period (1529-1822) through the early 1960s are generally considered for protection if they are determined to be historically or architecturally significant. Sites from the last 50 years may also be considered for protection if they could gain significance in the future. Historic resources are often associated with archaeological deposits of the same age.

Paleontological Resources

Paleontological resources are the mineralized (fossilized) remains of prehistoric plant and animal life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and leaves are found in geologic deposits (rock formations) where they were originally buried.

PHYSICAL SETTING

Prehistoric Context[1]

The Paleo-Archaic-Emergent cultural sequence developed by David A. Fredrickson is commonly used to interpret the prehistoric occupation of Central California. The sequence consists of three broad periods: the Paleoindian (Paleo) Period (10,000–6000 B.C.); the three-staged Archaic Period, consisting of the Lower Archaic (6000–3000 B.C.), Middle Archaic (3000–500 B.C.), and Upper Archaic (500 B.C.–A.D. 1000); and the Emergent Period (A.D. 1000–1800). The Paleo Period began with the first entry of people into California.

Historically, archaeological excavations along the eastern San Francisco bayshore have focused on shellmounds. Near the Planning Area, a shellmound, CA-ALA-5, was recorded in or near the Lake Merritt and Lake Merritt Channel group around 1910 by archaeologists Nels Nelson and Arnold Pilling. Little is known about this site, including its specific location.

The Planning Area is situated within territory occupied by Costanoan (also commonly referred to as Ohlone) language groups. Ohlone territories were composed of one or more land holding groups that anthropologists refer to as "tribelets." The tribelet, a nearly universal characteristic throughout native California, consists of a principle village, which was occupied year round, and a series of smaller hamlets and resource gathering and processing locations occupied intermittently or seasonally. Population densities of tribelets ranged between 50 and 500 persons, which were largely determined by the carrying capacity of a tribelet's territory. According to Randall Milliken, the Huchiun tribelet occupied the Oakland area at the time of Spanish contact.

Oakland City Beginnings[2]

The Planning Area is within the Rancho San Antonio land grant, which was originally granted to Luis Maria Peralta on August 3, 1820, for his service to the Spanish government. His 43,000-acre rancho included what are now the cities of Oakland, Berkeley, Alameda, and parts of San Leandro and Piedmont. Peralta's land grant was confirmed after Mexico's independence from Spain in 1822, and this title was honored when California entered the Union by treaty in 1848. The City of Oakland was incorporated in 1852, and officially recognized by the state in 1854. The Planning Area is one of the oldest areas of the city.

Oakland grew around its waterfront, with development limited only by the available modes of transportation. Steam ferry service to San Francisco was established in 1850, and by 1869 the first horse-car followed a route from the estuary up Telegraph Avenue to 40th Street. On November 8, 1869, the transcontinental railroad's first west-bound trip rolled through Oakland along Central Pacific tracks,

[1] LSA Associates, *Measure DD Implementation Project EIR*, 2007.

[2] LSA Associates, 2007.

which terminated at the new 7th Street station. By 1891, Oakland's first street car ran along Broadway to the City of Berkeley.

Subsequent to the devastation of the 1906 earthquake and fire in San Francisco, numerous refugees lived for months in tents set up in Lakeside Park on the shores of Lake Merritt. The influx of people to Oakland escaping the devastation from across the bay prompted the development of new residential areas in Oakland to accommodate displaced San Francisco residents. Older neighborhoods became more densely populated as new apartment buildings and related growth became part of Oakland's residential fabric.

Throughout the 20th century, commercial enterprises and industrial development, particularly the Port of Oakland and the Oakland Municipal Airport, played a vital role in Oakland's growth. During World War II, the Port provided land and facilities to the Army and Navy. By 1943, Oakland had become the largest shipping center on the West Coast, and within two decades was the largest container terminal on the West Coast. As suburbs grew outward during the 1950s, the inner core of the City began to decline, as residents left for the outlying areas. This trend began to reverse in the 1980s as reinvestment and redevelopment helped to invigorate the City's image and prospects.

Chinatown

The Chinese were the first Asian people to come to Oakland in significant numbers. They came from the Pearl River Delta region of southeast China, lured by the discovery of gold near Sacramento. Some came to Oakland in the 1850s. They lived in at least four different parts of a new and growing Oakland, and were moved from place to place to accommodate the development needs of other private interests and institutions, until they settled at the corner of 8th and Webster Streets in either the late 1860s or 1870s. This corner remains the center of the Oakland Commercial District today.

The 1906 San Francisco earthquake and fire ballooned Oakland's Chinese population. While some people returned to San Francisco, thousands of others stayed in Oakland. With a larger resident population, some moved into what is today the 7th Street/Harrison Square Residential District. Oakland's Chinatown, while relatively compact and small, thrived during World War II because it was near shipyards that brought in thousands of workers from other states. These workers went to Chinatown for food, haircuts and other personal needs. There were also significant numbers of Japanese and Filipinos who either lived or worked in or near Chinatown in the first half of the 20th century. For instance, a 1940 map developed by Japanese American historians in Oakland indicates a number of Japanese businesses in or near the core of Chinatown, reflecting a significant Japanese business presence. President Roosevelt's executive order to "relocate" Japanese on the U.S. West Coast in effect eliminated the presence of Japanese businesses and residents in Chinatown and other parts of Oakland during and after 1942. The Japanese population has subsequently been more dispersed.

According to *An Overview of Planning Efforts in Oakland's Chinatown*, 1950-2000[3] (Overview Report), Oakland's Chinatown grew substantially between the 1880s and 1960s. The following maps show the areas that some considered being part of Oakland Chinatown in the 1960s.

[3] Jane Rongerude, Center for Community Innovation, *An Overview of Planning Efforts in Oakland's Chinatown, 1950-2000,* 2008.

Immediately east of the Chinatown Commercial District and immediately north of the 7th Street/Harrison Square Residential District are three blocks with significant history for the Chinatown community. The three blocks are bounded by Jackson Street on the west, 9th Street on the north, Fallon Street on the east, and 8th Street on the south.

The three blocks are part of what was once called the Madison Square area in Oakland's early days, in the last half of the 19th century and going into the 20th century. As the young city expanded from its core at the estuary northward along Broadway, the Madison Square area became a desirable residential area for a growing white middle class in the late 19th century and into the early 20th century.

As Oakland continued to grow in the early decades of the 20th century, middle-class white Madison Square area residents moved further away from the core, creating housing opportunities for the gradually increasing Chinese population, which had spiked upwards when the earthquake and fire that devastated San Francisco in 1906 brought over thousands of suddenly displaced San Francisco Chinese. Several thousand of them decided to stay in Oakland, at least doubling Oakland's Chinese population.

For approximately 40 years—from the 1920s to the 1960s—Chinese families occupied many, if not most, of the residential properties (duplexes, four-plexes, and apartments) on two of those blocks—Jackson to Madison, 8th and 9th; and Oak to Fallon, 8th and 9th (Madison Square Park was between Madison and Oak, 8th and 9th). A 1951 Sanborn map shows 20 multiple-dwelling residential buildings on those two blocks, along with the Chinese Episcopal Church, the Ming Quong Home for Chinese Girls, and a gasoline station.

The Chinese families and individuals found the location to be convenient because it was immediately east of commercial Chinatown, which was centered at 8th and Webster Streets. There were important cultural and social services in commercial Chinatown, such as Chinese schools, family and business associations, and services like barber and herb shops. It was also near Lincoln Elementary School, which educated generations of Chinese children.

By the early 1960s, major public works projects began to transform the three blocks. The biggest project was the new Bay Area Rapid Transit District, created by the California Legislature in 1957 to provide a

fixed-rail mass transit system. The Bay Area Rapid Transit (BART) system won voter approval in three Bay Area counties to operate – one of them being Alameda County, which includes Oakland as the county seat.

In 1963, at the urging of Oakland and other East Bay officials, BART decided to permanently locate its operational headquarters, which had been in San Francisco on an interim basis, in Oakland. In addition, it drew up plans to open three downtown Oakland stations, one of them underneath the three blocks from Madison to Fallon between 8th and 9th Streets.

Those decisions had deep impact on the property owners, residents, businesses, and cultural institutions on those three blocks. From 1964 to 1966, BART acquired the rights to 24 parcels of property on the three blocks (one was the City-owned Madison Square Park). The acquisition costs ranged widely, from $10,250 to $52,750, but many were generally about $30,000 per parcel.

BART records show that 16 of the parcel owners were Chinese. This ultimately resulted in the displacement of approximately 75 Chinese households, according to Willard T. Chow, who wrote his Ph.D. dissertation for the University of California at Berkeley in 1974 on Chinese settlement in the East Bay.

The displaced Chinese households, along with other families and residents, spread to other parts of Oakland and beyond. The change was especially difficult for elderly Chinese, who felt comfortable living in close proximity to commercial Chinatown and whose grasp of English was weak or non-existent. Moving away meant a decrease in convenience and a cultural and linguistic disruption. For the Chinese Episcopal Church that once occupied the southwest corner of 9th and Madison Streets, its move to the Oakland hills resulted in a loss of many of its Chinese congregants, who stopped attending the church because it was too far away.

The Lake Merritt BART station began construction in the late 1960s and officially opened in 1972. The six-story BART administrative and engineering headquarters building officially opened for business in December of 1971. One significant change involved moving Madison Square Park one block to the west (Jackson to Madison between 8th and 9th Streets), which gave BART two contiguous blocks on which to establish its headquarters building and a parking lot (Madison to Fallon between 8th and 9th Streets), while building the Lake Merritt Station underground.

In 2006, the BART headquarters building above the Lake Merritt Station was deemed “at risk” if a major earthquake struck. Subsequently, the six-story building was dismantled in 2009 and the operational headquarters moved to the Kaiser complex along Lakeside Drive. That move has provided an opportunity for BART, the City of Oakland, Laney College, and the surrounding community—including Chinatown—to envision redeveloping the two BART-owned blocks.

Archaeological and Native American Resources

According to the NWIC at Sonoma State University, there are six recorded archaeological resources in the Planning Area, including a Native American habitation site, historic-era residential remains located throughout a city block, historic-era remains of a former rail line, areas of shell and dark sand, and a Native American burial. None of these resources are located directly within any of the opportunity sites identified by the Station Area Plan. However, some are located in close proximity.

NWIC concludes that there is a high potential of identifying unrecorded Native American Resources, especially buried archaeological deposits, in the Planning Area. This is due to the area's close proximity to the former margin of the Bay and its estuaries and marshlands, and because of its relatively stable Holocene-era landforms.[4]

A search of the Sacred Lands File conducted by the Native American Heritage Commission (NAHC) in March 2012 failed to indicate the presence of Native American cultural resources in the immediate area of the proposed Plan. Individuals and organizations with potential knowledge of cultural resources, as identified by the NAHC, were also contacted. As of June 2012, no resources have been identified.[5]

Historic and Potentially Historic Properties in the Planning Area

The Planning Area has many historic resources, including some 187 individual structures, as well as historic districts that incorporate a cluster of structures with similar character and may encompass multiple city blocks. Historic resources are shown in **Figure 3.8-1** and listed in **Table 3.8-1**.

Figure 3.8-1 shows all of the identified historic and potentially historic properties in the Planning Area, based on the following criteria considered by the City of Oakland to be significant resources under CEQA:

- A resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources;
- A resource included in Oakland's Local Register of Historic Resources, including all designated historic properties (Landmarks, Heritage Properties, Study List Properties, Preservation Districts, and S-7 and S-20 Preservation Combining Zone Properties); buildings rated as Level A (Highest Importance) or B (Major Importance) in the City's Cultural Heritage Survey; and buildings of Level C (Secondary Importance) that contribute to an Area of Primary Importance (API); unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- A resource identified as significant (with a rating of 1 through 5) in a historical resources survey recorded on Department of Parks and Recreation Form 523, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- Meets the criteria for listing on the California Register for Historic Resources; or
- A resource that is determined by the Oakland City Council to be historically or culturally significant even though it does not meet the other four criteria listed above.

Properties may meet more than one of the above criteria.

National Register of Historic Places

The National Register of Historic Places recognizes buildings and sites that are associated with significant events or persons that have distinctive or important architectural or design characteristics, or that may be informative about history or prehistory. The Planning Area includes four sites listed on the National Register: the Oakland Hotel at 260, 13th Street; the Main Post Office and Federal Building at 201, 13th

[4] Northwest Information Center, NWIC File No. 11-1032, April 19, 2012.

[5] Native American Heritage Commission, *RE: Lake Merritt Station Area Plan and EIR, Alameda County,* April 23, 2012.

Street; Madison Park Apartments at 100, 9th Street; and the Lake Merritt Wild Duck Refuge (now Lake Merritt and Lake Merritt Park, also a National Historic Landmark), including a very small portion in the Planning Area.

The National Register also includes a portion of the Downtown Oakland Historic District. The district features City Hall and its plaza and a series of early 20th Century seven- to 24-story skyscrapers, and is located along Broadway between 11th and 17th Streets. While the district is mainly outside the Planning Area, there are seven contributing properties within the Planning Area, along 12th, 13th, and 14th Streets between Franklin and Webster Streets. National Register properties are shown on **Figure 3.8-1** and detailed in **Table 3.8-1**. National Register properties are significant for purposes of this analysis because nationally-listed properties are also generally eligible for listing on the California Register.

California Register of Historical Resources

The Planning Area features two properties listed in the California Register of Historical Places. Both of these properties—308, 14th Street (the Oakland Hotel) and 100, 9th Street (Madison Park Apartments) are listed in both the California and National Registers. These properties are shown on **Figure 3.8-1** and detailed in **Table 3.8-1**.

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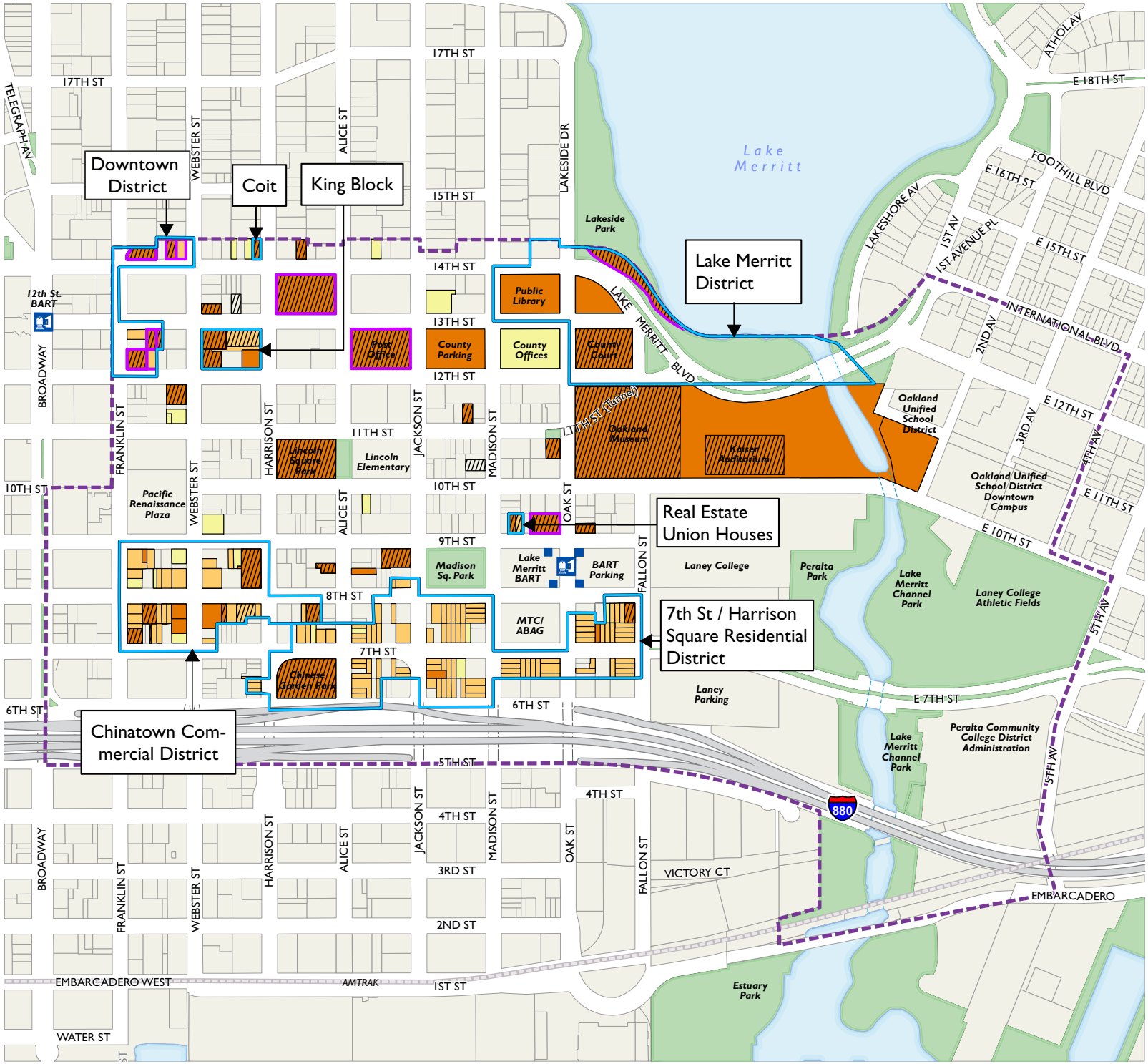
Downtown District
Coit
King Block
Lake Merritt District
Real Estate Union Houses
7th St / Harrison Square Residential District
Chinatown Commercial District
Lake Merritt
Lakeside Park
Public Library
County Parking
County Offices
County Court
Post Office
Oakland Museum
Kaiser Auditorium
Oakland Unified School District
Oakland Unified School District Downtown Campus
Lincoln Square Park
Lincoln Elementary
Pacific Renaissance Plaza
Madison Sq. Park
Lake Merritt BART
BART Parking
MTC/ ABAG
Chinese Garden Park
Laney College
Laney Parking
Peralta Park
Lake Merritt Channel Park
Laney College Athletic Fields
Peralta Community College District Administration
Estuary Park
12th St. BART
17TH ST
15TH ST
14TH ST
13TH ST
12TH ST
11TH ST
10TH ST
9TH ST
8TH ST
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6TH ST
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1ST ST
E 18TH ST
E 16TH ST
E 15TH ST
E 12TH ST
E 11TH ST
E 10TH ST
E 7TH ST
TELEGRAPH AV
WEBSTER ST
ALICE ST
LAKESIDE DR
ATHOL AV
FOOTHILL BLVD
LAKESHORE AV
1ST AV
1ST AVENUE PL
INTERNATIONAL BLVD
2ND AV
3RD AV
4TH AV
5TH AV
LAKE MERRITT BLVD
11TH ST (Hunger)
BROADWAY
FRANKLIN ST
HARRISON ST
JACKSON ST
MADISON ST
OAK ST
FALLON ST
VICTORY CT
EMBARCADERO
EMBARCADERO WEST
AMTRAK
WATER ST
880
Fig. 3.8-1
Historic Resources
BART Station Entrance
BART Station
Areas of Primary Importance
Listed on State and/or National Register
City of Oakland Designated Historic Property
Rated "A" or "B" on Oakland Cultural Heritage Survey
Other Potential Designated Historic Property within Area of Primary Importance
Other Potential Historic Resources (mostly properties rated 1-5 in the California Historic Property Directory)
Existing and Planned Parks
Planning Area
There are no City-designated Heritage Properties, Study List Properties, Preservation Districts, or S-7 or S-20 Preservation Combining Zone properties in the Planning Area.
0 100 300 500 750 1,000
FEET
Source: City of Oakland and Dyett and Bhatia, 2009.

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Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
1	125 2nd Ave.[5]	OUSD Administration Building	1928					B	
2	170 6th St.		1904-05			3D		D	Yes
3	178 6th St.		1888-89			3D		C	Yes
4	182 6th St.		1900-01			3D		C	Yes
5	186 6th St.		1889-90			3D		C	Yes
6	190 6th St.		1889-90			3D		C	Yes
7	228 6th St.		1871-72			3D		C	Yes
8	64 7th St.		1895-96			3D		C	Yes
9	65 7th St.		1889-90			3D		C	Yes
10	68 7th St.		1904			3D		D	Yes
11	70 7th St.		1889-90			3D		C	Yes
12	76 7th St.		1889-90					B	Yes
13	77 7th St.		1889-90			3D		C	Yes
14	92 7th St.		1929			3D		C	Yes
15	119 7th St.		1905-06			3D		C	Yes
16	121 7th St.		1905-06			3D		C	Yes
17	125 7th St.		1889-90					C	Yes
18	129 7th St.		1889-90			3D		C	Yes
19	162 7th St.		1950			3D			
20	166 7th St.		1882-89			3D		C	Yes
21	167 7th St.					3D			
22	170 7th St.		1876-77			3D		C	Yes

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
23	176 7th St.		1866-70			3D		C	Yes
24	177 7th St.		1875-76					D	Yes
25	178 7th St.		1865-66			3D		C	Yes
26	181 7th St.		1867-68			3D		C	Yes
27	182 7th St.		1872-73			3D		D	Yes
28	185 7th St.		1890			3D		C	Yes
29	194 7th St.		1889-90					C	Yes
30	213 7th St.		1898-99			3D		C	Yes
31	227 7th St.		1890-92					C	Yes
32	228 7th St.		1885-86			3D		C	Yes
33	230 7th St.		1886-87			3D		C	Yes
34	234 7th St.		1888-90			3D		D	Yes
35	235 7th St.		1898-99			3D		C	Yes
36	256 7th St.		1901-02					C	Yes
37	262 7th St.		1901-02			3D		D	
38	270 7th St.		1901-02					C	Yes
39	272 7th St.		1867-68			3D		C	Yes
40	346 7th St.		1877					C	Yes
41	374 7th St.		1906					C	Yes
42	380 7th St.		1939					D	Yes
43	77 8th St.[6]		1920			5S2			
44	51 8th St.		1890-91			3D	Designated	A	Designated
45	55 8th St.		1897-98			3D		C	Yes

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
46	59 8th St.		1896			3D		C	Yes
47	61 8th St.		1892-93			3D		C	Yes
48	73 8th St.		1945-46			5S2		D	
49	157 8th St.		1893-94			3D		C	Yes
50	161 8th St.		1894-95			3D		D	Yes
51	165 8th St.		1900-01			3D		C	Yes
52	167 8th St.		1900-01					D	Yes
53	171 8th St.		1911					C	Yes
54	175 8th St.		1875					C	Yes
55	202 8th St.		1890-92					C	Yes
56	213 8th St.		1889			3D		D	Yes
57	214 8th St.		1890-92			3D		C	Yes
58	227 8th St.		1897					C	Yes
59	265 8th St.	Chinese Presbyterian Church and Annex	1927			3D	Landmark	A	Designated
60	277 8th St.		1889			3D		D	Yes
61	303 8th St.		1905-06					C	Yes
62	321 8th St.		1952				Designated		Designated
63	329 8th St.		1913-14					C	Yes
64	333 8th St.		1913-14				Designated	B	Designated
65	362 8th St.								Yes
66	366 8th St.		1913			3D		D	Yes

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
67	373 8th St.		1912			3D		C	Yes
68	374 8th St.		1906			3D			
69	377 8th St.		1924			3D		C	Yes
70	381 8th St.		1924					D	Yes
71	383 8th St.		1923-24				Designated	B	Designated
72	94 9th St.		1910?				Designated	B	
73	100 9th St.	Madison Park Apartments	1908	Landmark	Listed	1S	Designated	A	
74	138 9th St.		1878-79			3D	Designated	C	Designated
75	142 9th St.		1878-79			3D	Designated	B	Designated
76	323 9th St.					5S2			
77	333 9th St.		1927					D	Yes
78	346 9th St.		1915-16			5B		D	
79	383 9th St.		1911-12			3D		C	Yes
80	387 9th St.		1905-06			3D		B	Yes
81	178 10th St.[6]		1926			5S2		D	
82	241 10th St.		1925-26			5S2		C	
83	250 10th St.	Oakland Square (Lincoln Square Park)	1853			3S	Landmark	B	
84	164 11th St.		1914				Designated	B	
85	370 11th St.		1925			5B		D	
86	200 12th St.	Main Post Office and	1931-32	Landmark			Landmark	A	

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
		Federal Building							
87	300 12th St.							A	
88	301 12th St.[6]		1920			5S2		D	
89	338 12th St.		1922				Designated	B	Designated
90	388 12th St.	Marks Building	1912	Contributing Property				C	Yes
91	392 12th St.	St. Mark Hotel	1907	Contributing Property			Designated	B	Designated
92	184 13th St.		1908-09			5S2		C	
93	260 13th St.	Hotel Oakland	1910-12	Landmark	Listed		Landmark	A	
94	319 13th St.		1916				Designated	C	Designated
95	320 13th St.		1920				Designated	C	
96	343 13th St.		1906-07				Designated	B	Designated
97	346 13th St.		1913-14				Designated	B	
98	363 13th St.	Central Building & Loan Association Building	1929	Contributing Property			Designated	B	Designated
99	371 13th St.	Hotel St. George	1906-08	Contributing Property			Designated	B	Designated
100	393 13th St.		1950-52						Yes
101	125 14th St.	Oakland Public Library	1949-50					A	Yes
102	220 14th St.					5S2			

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
103	272 14th St.		1924-25				Designated	B	
104	308 14th St.		1921-22			1D		D	
105	322 14th St.		1939-40			5S2		C	
106	364 14th St.	Income Securities Building	1928	Contributing Property			Designated	B	Designated
107	602 Alice St.		1902-03					C	Yes
108	606 Alice St.		1890-92			3D		C	Yes
109	614 Alice St.		1902-03					C	Yes
110	618 Alice St.		1889-90					C	Yes
111	632 Alice St.		1898-99					C	Yes
112	636 Alice St.		1890-92					C	Yes
113	701 Alice St.		1901-02			3D		C	Yes
114	702 Alice St.		1886-87			3D		C	Yes
115	704 Alice St.		1886-87			3D		C	Yes
116	708 Alice St.		1896			3D			
117	712 Alice St.		1877-78			3D		C	Yes
118	816 Alice St.		1890c					B	
119	817 Alice St.		1909			3S	Designated	A	
120	121 E. 11th St.[5]	Ethel Moore Building	1922					B	
121	617 Fallon St.		1890-92					C	Yes
122	621 Fallon St.		1893					C	Yes
123	625 Fallon St.		1889-90			3D		C	Yes

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
124	633 Fallon St.		1897					C	Yes
125	703 Fallon St.		1898-99					C	Yes
126	705 Fallon St.		1909			3D		C	Yes
127	709 Fallon St.		1892			3D		D	Yes
128	715 Fallon St.		1913			3D		D	Yes
129	1225 Fallon St.		1935-36			3S	Designated	A	Designated
130	700 Franklin St.		1924			3D	Designated	A	Designated
131	712 Franklin St.		1907			3D		D	Yes
132	722 Franklin St.		1919-20					D	Yes
133	728 Franklin St.		1928			3D		C	Yes
134	800 Franklin St.					5D2			
135	810 Franklin St.		1924			5D2		C	Yes
136	822 Franklin St.		1905-06					C	Yes
137	1404 Franklin St.	Alameda County Title Insurance Building	1923	Contributing Property			Landmark	B	Designated
138	0 Harrison St.		1904-22					C	Yes
139	607 Harrison St.		1876			3D		D	Yes
140	611 Harrison St.		1876-77			3D		C	Yes
141	621 Harrison St.		1890					C	Yes
142	640 Harrison St.		1853				Designated	A	Designated
143	726 Harrison St.					5D2			
144	807 Harrison St.	Hebern Electric Code	1922-23				Landmark	A	Designated

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
		Co. Building							
145	1415 Harrison St.		1914				Designated	B	Designated
146	612 Jackson St.		1868			3D		C	Yes
147	615 Jackson St.		1896-97					D	Yes
148	616 Jackson St.		1872-73			3D		B	Yes
149	621 Jackson St.		1860s					C	Yes
150	624 Jackson St.		1894-96			3D		C	Yes
151	628 Jackson St.		1888-89			3D		C	Yes
152	705 Jackson St.		1872-73			3D		D	Yes
153	825 Jackson St.	Buddhist Church of Oakland	1927			3S	Landmark	A	
154	165 13th St.[7]	ALCO Parking Garage	1962					B	
155	603 Madison St.		1904			3D		C	Yes
156	607 Madison St.		1904-05			3D		C	Yes
157	617 Madison St.		1904-05					C	Yes
158	620 Madison St.		1888-89			3D		C	Yes
159	624 Madison St.		1893			3D		C	Yes
160	628 Madison St.		1890					C	Yes
161	632 Madison St.		1889			3S		C	Yes
162	717 Madison St.		1894-95			3D		C	Yes
163	723 Madison St.		1893-94					D	Yes
164	729 Madison St.		1914					D	Yes

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
165	733 Madison St.		1896-97					C	Yes
166	1009 Madison St.		1870				Designated	C	
167	0 Oak St.		1911-12					B	Yes
168	619 Oak St.		1908			3D		C	Yes
169	624 Oak St.		1890-92					C	Yes
170	627 Oak St.		1906-08			3D		C	Yes
171	631 Oak St.		1904-05			3D		C	Yes
172	710 Oak St.		1892-93					C	Yes
173	714 Oak St.		1892-93			3D		C	Yes
174	722 Oak St.		1892					C	Yes
175	726 Oak St.		1889-90			3D		C	Yes
176	1000 Oak St.	Oakland Municipal Auditorium, Oakland Museum	1913-15, 1969				Landmark (both buildings)	A	
177	1029 Oak St.		1915			3S	Designated	B	
178	1221 Oak St.	Alameda County Office Building	1962			2S2			
179	701 Webster St.					5D2			
180	711 Webster St.		1937			3B		B	Yes
181	718 Webster St.		1904-05					B	Yes
182	735 Webster St.		1914-15					B	Yes
183	818 Webster St.		1903-04					C	Yes

Table 3.8-1 Historic Resources in the Planning Area

No.	*Address*	*Name*	*Year Built*	*National Register*	*California Register*	*California Historic Resources Code*[1]	*Oakland Designated Historic Properties*[2]	*Oakland Survey Rating*[3]	*Potential Designated Historic Property in API*[4]
184	821 Webster St.		1936-37					C	Yes
185	824 Webster St.		1928			3D		D	Yes
186	831 Webster St.					5D2			
187	1101 Webster St.					5B			
188	1127 Webster St.		1911				Designated	B	
189	1415 Webster St.	Bradley Store Building	1916, 1928	Contributing Property				D	Yes
190	Lake Merritt	Lake Merritt Wild Duck Refuge (Lake Merritt and Park)	1869-70	Landmark			Landmark	B	

Notes:

1 Only properties with ratings in categories 1 through 5 are considered potentially significant for CEQA purposes and included in this table. See Table 3.8-2 for code definitions.

2 Designated historic properties include but are not limited to Landmarks, Heritage Properties, Study List Properties, Preservation Districts, and S-7 and S-20 Preservation Combining Zone Properties.

3 Only properties rated “A” or “B” are considered significant and included in this table, unless they also meet other criteria. See Table 3.8-1 for code definitions.

4 Potential Designated Historic Properties as identified by the City of Oakland are considered significant where they are within an Area of Primary Importance (API).

5 These two OUSD properties are potentially “B”-rated and should be treated as Local Register, according to the City of Oakland.

6 The Oakland Cultural Heritage Survey has determined that the preponderance of evidence shows that these are not CEQA historic resources.

7 The ALCO Parking Garage (165, 13th Street) will be rated B by the OCHS, according to the City of Oakland.

Sources: City of Oakland, 2009, 2013; Office of Historic Preservation, Northwest Information Center, Sonoma State University, 2012; Dyett & Bhatia, 2013.

City of Oakland Local Register of Historic Resources

Designated Historic Properties

Designated historic properties on the City of Oakland's Local Register of Historic Resources include Landmarks, Heritage Properties, Study List Properties, Preservation Districts, S-7 and S-20 Preservation Combining Zone properties, and other properties.

Landmarks

Landmarks are the most prominent historic properties in the city. They may be designated for historical, cultural, educational, architectural, aesthetic, or environmental value. Ten buildings or places in the Planning Area have Landmark status, Oakland's highest level of recognition of historic significance. These include the former Oakland Municipal Auditorium (Kaiser Auditorium), Lincoln Square Park, Hotel Oakland, the Main Post Office, the Oakland Museum of California, 801-833 Harrison Street (the former Hebern Electrical Code Co. Building), the Chinese Presbyterian Church, and the recently landmarked Buddhist Church of Oakland. One of these local Landmarks (Hotel Oakland) is also on the State Register, and three (Hotel Oakland, the Post Office, and Lake Merritt) are also listed in the National Register.

Other Designated Historic Property Categories

The Planning Area does not include any Heritage Properties, Study List Properties, Preservation Districts, or S-7 or S-20 Preservation Combining Zone properties. However, many buildings in the Planning Area are designated historic properties.

*The ten City-designated Landmarks and 27 other Designated Historic Properties are shown on **Figure 3.8-1**, and detailed in **Table 3.8-1**. Oakland Cultural Heritage Survey*

The Oakland Cultural Heritage Survey (OCHS) is a general survey of every building in Oakland. Per National Park Standards, it evaluates the significance of buildings 50 years or older and selected additional properties having obvious historical or architectural value. The survey includes detailed research and evaluation for many specific buildings and neighborhoods, including the entire Downtown area. The (OCHS establishes a five-tier rating system, rating individual buildings based on criteria of visual quality or design, history or association, context, or integrity and reversibility. The Survey also identifies areas where a cluster of historic buildings or structures may be eligible for listing on the National Register of Historic Places (these are Areas of Primary Importance, or APIs), or where the historic character is considered of local but not national significance (Areas of Secondary Importance, or ASIs). Typical characteristics of each building rating level and district type are summarized in **Table 3.8-2**. This classification system is used to determine property eligibility for the City's Local Register of Historic Resources.

Potential Designated Historic Properties

The City considers any property rated "C" or higher on the OCHS or that that contributes or potentially contributes to an API or ASI to "warrant consideration for possible preservation." These Potential Designated Historic Properties (PDHPs) are a large group; within this group, the City's rating system and the building's location influence the level of priority it may receive for preservation. For CEQA purposes, impacts to PDHPs rated "A" or "B" or those that are within an Area of Primary Importance are

considered potentially significant. Properties that meet these criteria are included in **Table 3.8-1** and shown on **Figure 3.8-1**.

Buildings Rated "A" or "B" on the Oakland Cultural Heritage Survey

Forty-four properties in the Planning Area are rated "A" or "B" by the OCHS, including the landmarks identified above. These buildings are shown on **Figure 3.8-1**, and detailed in **Table 3.8-2**. One of these properties will be rated "B" by the OCHS, as noted in the table.

Other Potential Designated Historic Properties in Areas of Primary Importance

Potential Designated Historic Properties of secondary ("C") or minor ("D") importance according to the OCHS, or identified PDHPs that do not have a rating, are considered significant for CEQA purposes if they are located within an API. These structures may not have a high level of visual quality, historical association, or integrity, but are important in strengthening their historic context. There are 121 structures in the Planning Area that meet this description, as shown on **Figure 3.8-1**. Some of these properties are also identified on the California Historical Property Directory.

Areas of Primary Importance are discussed in more detail following the explanation of historic individual properties.

California Historical Property Directory

The State Office of Historic Preservation Historic Property Directory (OHP HPD) includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places. The list classifies properties into seven broad categories, and makes distinctions within each category, as shown in **Table 3.8-3**.

The City of Oakland considers properties in categories 1 through 5 to be significant, unless the preponderance of evidence demonstrates that it is not historically or culturally significant. A search of the OHP HPD by the Northwest Information Center found that 108 properties in the Planning Area were in categories 1 through 5. Planning Area sites in categories 1 through 5 on the Historic Property Directory are included in **Table 3.8-1,** and shown in **Figure 3.8-1**. Many of these properties are also rated "A" or "B" by the OCHS or are considered Potential Designated Historic Properties and are located within an Area of Primary Importance. The Oakland Cultural Heritage Survey has determined that the preponderance of evidence shows that three of these properties are not CEQA historic resources, as noted in **Table 3.8-1**.

Table 3.8-2: City of Oakland Historic Resource Rating System

Rating Level	*Description*
A: Properties of Highest Importance	This designation applies to the most outstanding properties, considered clearly eligible for individual National Register and City Landmark designation. Such properties consist of outstanding examples of an important style, type, or convention, or are intimately associated with a person, organization, event, or historical pattern of extreme importance at the local level or of major importance at the state or national level.
B: Properties of Major Importance	These are properties of major historical or architectural value but not sufficiently important to be rated "A." Most are considered individually eligible for the National Register, but some may be marginal candidates. All are considered eligible for City Landmark designation and consist of especially fine examples of an important type, style, or convention, or are intimately associated with a person, organization, event, or historical pattern of major importance at the local level or of moderate importance at the state or national level.
C: Properties of Secondary Importance	These are properties that have sufficient visual/architectural or historical value to warrant recognition but do not appear individually eligible for the National Register. Some may be eligible as City Landmarks and are superior or visually important examples of a particular type, style, or convention, and include most pre-1906 properties.
D: Properties of Minor Importance	These are properties which are not individually distinctive but are typical or representative examples of an important type, style, convention, or historical pattern. The great majority of pre-1946 properties are in this category.
E, F, or *: Properties of No Particular Interest.	Properties that are less than 45 years old or modernized.
District Status	*Description*
Area of Primary Importance (API)	A property in an Area of Primary Importance (API) or National Register quality district. An API is a historically or visually cohesive area or property group identified by the OCHS which usually contains a high proportion of individual properties with ratings of "C" or higher. "C" or "D" rated buildings within APIs are considered to be high enough priority to be included on the Local Register.
Area of Secondary Importance (ASI)	A property in an Area of Secondary Importance (ASI) or a district of local significance. An ASI is similar to an API except that an ASI does not appear eligible for the National Register.
Not in a District	A property not within a historic district.

Note:
Properties with ratings of "C" or higher or are contributors to or potential contributors to an API or ASI are considered Potential Designated Historic Properties (PDHP) that may warrant consideration for preservation by the City.

Source: LSA Associates, Measure DD Implementation Project EIR, 2007.

Table 3.8-3: California Historical Resource Status Codes

Rating Level	*Description*
Properties Listed in the National Register (NR) or the California Register (CR)	
1D	Contributor to a district or multiple resource property listed in NR by the Keeper. Listed in the CR.
1S	Individual property listed in NR by the Keeper. Listed in the CR.
Properties Determined Eligible for Listing in the NR or CR	
2S2	Individual property determined to be eligible for National Register by consensus through Section 106 process. Listed in the CR.
Appears Eligible for NR or CR through Survey Evaluation	
3D	Appears eligible for NR as a contributor to a NR eligible district through survey evaluation.
3S	Appears eligible for NR as an individual property through survey evaluation.
Properties Recognized as Historically Significant by Local Government	
5B	Locally significant both individually (listed, eligible, or appears eligible) and as a contributor to a district that is locally listed, designated, determined eligible or appears eligible through survey evaluation.
5D2	Contributor to a district that is eligible for local listing or designation.
5S2	Individual property that is eligible for local listing or designation.
Not Eligible for Listing or Designation as Specified	
6Y	Determined to be ineligible for NR by consensus through Section 106 process - Not evaluated for CR or Local Listing.
6Z	Found ineligible for NR, CR or Local designation through survey evaluation.
Not Evaluated for NR or CR or Needs Reevaluation	
7N	Needs to be re-evaluated for NR or CR.
7R	Identified in reconnaissance level study. Not evaluated for NR or CR.

Note:
Only status codes that are present in the Planning Area are identified. Codes beginning with 6 and 7 are not considered potentially significant by the City of Oakland for CEQA purposes.

Sources: Office of Historic Preservation, Northwest Information Center, Sonoma State University, 2012; Dyett & Bhatia, 2012.

Other Potential Resources

Although the Planning Area has been surveyed by OCHS or others in the recent past, there may be other properties that have not yet been identified or evaluated for their potential historical significance, either at federal, state, or local levels. New information or new contexts may be discovered, or properties may not have been 50 years old at the time of the original surveys. Today there may be buildings built in the 1950s and early 1960s that are now eligible but were not considered during previous surveys. By the anticipated reasonably foreseeable maximum development of the Station Area Plan, buildings constructed before 1980 will have reached 50 years of age. Areas of Primary Importance

Seven Areas of Primary Importance are within or partially within the Planning Area. These historic districts are designated by the City of Oakland, and are defined as areas that appear eligible for the National Register of Historic Places (refer to **Table 3.8-1** for definitions.) The APIs range in size from two parcels to multiple blocks and over 100 parcels. The APIs are the Chinatown Commercial District, 7th Street/Harrison Square Residential District, Downtown District, King Block, Real Estate Union Houses, Coit, and Lake Merritt District. There are also several Areas of Secondary Importance (ASI), which are locally significant historic districts that do not appear eligible for the National Register of Historic Places. A review of current conditions in individual districts follows.

Chinatown Commercial District

According to the 1985 Historic Resources Inventory of the Oakland Cultural Heritage Survey the Chinatown Commercial District is a historic area that consists of mostly four square blocks which meet at the historic center of Oakland's Chinatown, 8th and Webster Streets, plus a "panhandle" extending east for less than one block. Borders of the district are Franklin Street on the west, 9th Street on the north, Harrison Street on the east, and 7th Street on the south.

Most of the buildings in the district are small in scale and similar in their simple early 20th-century commercial styles, according to the 1985 City inventory. Uses generally are retail and commercial on the ground floor, with residences or offices, including those of Chinese associations, on the upper floors, plus two Christian churches. The area is characterized by high density and lively sidewalk activity. It draws not only residents, but also workers from nearby downtown office buildings, including the City Hall area, as well as Chinese and other Asians from Oakland and other East Bay communities.

According to the 1985 inventory, new buildings in the district were constructed to participate in the established Chinatown activities. The same architectural and façade features crop up in remodelings done in the 1960s and 1970s. The 1985 inventory indicated that when these newer buildings reach a historically eligible age (50 years), they too could be rated contributors to the next generation Chinatown Commercial District.

It should be noted that some of the newer buildings in the Planning Area are occupied by organizations and institutions that provide essential and important cultural resources, such as affordable health care in different Asian languages, guidance and education for new immigrants, affordable housing services for low and moderate income immigrants, and traditional and contemporary cultural arts. These fundamental cultural uses of newer buildings (such as the Asian Resource Center, Pacific Renaissance Plaza, and Asian Health Services among others) should be considered as important to the community's history and sustainability and should be equally considered when planning for the future growth of the neighborhood. These resources are described in detail in Section 3.6.

The City's 1985 Historic Resources Inventory rated 29 buildings in the district as contributors. Many of them have two or more addresses. In many cases, some of the addresses are for street-level businesses; other addresses lead to second-story offices, association halls, or residences.

The inventory rated three district buildings as Highest Importance historic resources and as primary contributors to the district. They are:

- 801-33 Harrison Street: Originally the Hebern Electric Code Co. Factory & Office Building constructed in 1922-23, it later became the Lyon Moving and Storage Company building. The East Bay Asian Local Development Corp. acquired it and began a large-scale renovation in 1979-1980, turning it into the Asian Resource Center, which has its main entrances at 310, 8th Street and 317, 9th Street. "For its architecture the Hebern Building appears eligible for individual listing on the National Register of Historic Places; for its architecture, its historic use by Frank H. Yick, Chinatown's so-called all-purpose mechanic, and its present focus of Asian activities, the building is a primary contributor to the Chinatown Commercial District," according to the 1985 City inventory. This building has been designated as a Landmark.
- 265-73, 8th Street: The Chinese Presbyterian Church was built in 1927 and an annex was added in 1957-58. The city's 1985 inventory states that "the Chinese Presbyterian Church appears eligible for listing on the National Register of Historic Places as a fine Arts-and-Crafts treatment of a Romanesque Revival theme, as the best local example of early 20th century Christian missionary work in the Chinese community and as a major community center continuing its historic occupancy. It is also an anchor and primary contributor in the Chinatown Commercial District." This building has been designated as a Landmark.
- 700-10 Franklin Street: Historically known as the Pekin Low Café Building constructed in 1924, today it is the Legendary Palace Restaurant. "Architecturally, the building is distinguished for its especially lavish use of Chinese architectural motifs, making it one of the most striking visual landmarks within Oakland Chinatown. It is the district's only pre-1950 building to use Chinese motifs as a tourist attraction. For its architecture and activities, the Pekin Low building is a primary contributor to the Chinatown Commercial District. It appears eligible for individual listing on the National Register of Historic Places," the city's 1985 inventory stated.

As for the district's historical and architectural importance, the city's 1985 inventory said it appears eligible for listing on the National Register of Historic Places under criteria A and C, events and architecture, and under category G, exceptional importance. The events are the countless actions that have made this district the East Bay's focus of continuous Chinese residential, institutional, and commercial occupation ever since the City of Oakland relocated Chinatown to 8th and Webster Streets in the late 1860s or 1870s.

The exceptional importance of the Chinatown Commercial District is that Oakland has the only historic urban Chinatown surviving in California except for San Francisco. As a group of small-scale early 20th century commercial structures, the district is a rare survival for an inner city. This is also in light of the historical fact that anti-Chinese agitation and violence destroyed or greatly diminished other Chinatowns in cities like Los Angeles, Sacramento, San Diego, San Jose, and Stockton.

7th Street/Harrison Square Residential Historic District

According to the 1985 Historic Resources Inventory of the Oakland Cultural Heritage Survey the 7th Street/Harrison Square Residential District consists of the properties along five blocks of 7th Street and the cross streets from Harrison to Fallon streets, extending in some places to 8th Street and 6th Street. It is almost entirely housing and one City park. Part of the northern boundary of the district is across from Madison Park and the two blocks owned by BART. There are no proposed changes to building designations or the boundary of the district.

Most of the buildings look like one- or two-family dwellings. They are detached one- or two-story wood frame structures set back from the sidewalk line. According to the 1985 inventory, the most numerous building type, about one fourth of the total, is the Queen Anne cottage. This has a main story, with raised basement and usually an attic under a gable or hip-and-gable roof.

Other styles prevalent in the district are the Queen Anne house (similar to the cottage but taller) and the Colonial Revival house or cottage (more sedate and more classical in ornamentation, with fewer contrasts, greater symmetry, allusions to 18th century American designs such as clapboard siding, slender turned balustrades, and shouldered window surrounds).

The original buildings have been changed. For instance, most now contain more units than they did originally. Many garages have been inserted under projecting bay windows. Except for the intrusions of a dozen industrial buildings and another dozen modern apartment buildings, the district is unified in scale, materials, design, workmanship, setting, feeling, apparent density, use, and the relationship of buildings to lots.

Per the city's 1985 inventory, the district appears eligible for listing on the National Register of Historic Places as a surviving area of middle- and lower-middle-class housing constructed largely between 1889 and 1910. Two-thirds of the district's features, or 79 structures, are historic contributors in the district. More—some 18 houses—could contribute, if restored.

The City's 1985 inventory rated two sites as historic resources of highest importance and primary historic contributors:

- Harrison Square, once known as Harrison Railroad Park, 600-98 Harrison Street (the block bounded by Harrison, Alice, 6th, and 7th Streets): According to the City's 1985 inventory, Harrison Square appears to be individually eligible for the National Register of Historic Places. It is a link to Oakland's pioneer days. A map made in 1853 for the city's founders distinctly showed Harrison Square, by name, in its present location.
- 51, 8th Street: Called the Lougee-Baumgartner House, it was constructed in 1890-91, and, according to a 1983 Historic Resources Inventory of the Oakland Cultural Heritage Survey, "is among Oakland's most elaborate and most intact surviving large Queen Anne residences, distinguished by its richly varied forms, ornamentation and surface treatments."

The district began as a residential area and largely continues so to this day. Most of the original owners were artisans, small businessmen, or railroad employees, and many of them lived in the district. The district is part of a larger area once called Madison Square. In the late 1800s and early 1900s, the Madison Square area was a desirable housing area for the white middle-class population of Oakland.

As Oakland expanded to the north and east, other areas farther from the city's original core became more desirable. The gradual departure of the white middle class to newer, more desirable areas provided opportunities for Chinese residents to move into what is now the 7th Street/Harrison Square Residential District.

Chinese residents began living in the district's houses in the early 20th century, after the 1906 San Francisco earthquake and fire, and in the decades following. However, some Chinese families had to move when public projects like the Nimitz Freeway, BART, the Association of Bay Area Governments Building, and, to a lesser extent, Laney College and the Oakland Museum of California, took over blocks adjacent to the district.

The heavy demand for housing in the district that began in the 1970s and 1980s followed the influx of Chinese and other Asian immigrants to Oakland. These new immigrants and refugees were attracted by the proximity of shops and services in the Chinatown Commercial District immediately to the northwest.

A walking tour of the district in January 2010 found that almost all of the houses rated as historic contributors to the district are still intact and apparently occupied. Only one or two were visibly unoccupied and/or boarded up. However, several houses appear to be poorly maintained and several are identified as substandard housing by the Alameda County Assessor's office. This is particularly true for the homes closest to I-880, such as those along 6th Street.

Lake Merritt District

When the Oakland Main Library at 125, 14th Street was formally evaluated in the inventory in the 1980s it was individually rated *a (too recent to rate, potentially A when old enough). On the point-system evaluation, it received a 62 on a scale where 40 is an A, "Highest Importance." It was built in 1949-1950, so it is now well past the 50-year requirement and appears eligible for National Register and City Landmark status, although it has never been nominated. The City is currently updating the Lake Merritt District Boundary to include the Main Public Library.

Other Districts

The Downtown District is a large district focused around the core of downtown Oakland along Broadway. It includes a small number of contributing properties within the Planning Area between Franklin and Webster Streets north of 12th Street. Other APIs in the Planning Area are the Coit District, the King District, and the Real Estate Union Houses, each of which are relatively small. These smaller districts are still intact. The King building on 12th Street was recently renovated.

REGULATORY SETTING

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) is the most prominent federal law dealing with historic preservation. The NHPA established guidelines to "preserve important historic, cultural, and natural aspects of our national heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice." The NHPA includes regulations specifically for federal land-holding agencies, but also includes regulations (Section 106) which pertain to all projects that are funded,

permitted, or approved by any federal agency and which have the potential to affect cultural resources. All projects that are subject to the National Environmental Policy Act (NEPA) are also subject to compliance with Section 106 of the NHPA. Furthermore, all projects that are carried out by Caltrans are also subject to Section 106. The California Office of Historic Preservation (OHP) carries out reviews under Section 106 of the NHPA.

The Section 106 review process normally involves a four-step procedure described in detail in the Section 106 Regulations (36 CFR Part 800):

- Identify and evaluate historic properties in consultation with the State Historic Preservation Officer (SHPO) and interested parties;
- Assess the effects of the undertaking on properties that are eligible for inclusion in the NRHP;
- Consult with the SHPO, other agencies, and interested parties to develop an agreement that addresses the treatment of historic properties and notify the Advisory Council on Historic Preservation; and
- Proceed with the project according to the conditions of the agreement.

National Register of Historic Places

The NHPA authorizes the Secretary of the Interior to establish a National Register of Historic Places (National Register), an inventory of districts, sites, buildings, structures, and objects significant on a national, state, or local level in American history, architecture, archeology, engineering, and culture. The National Register is maintained by the National Park Service, the Advisory Council on Historic Preservation, State Historic Preservation Office, and grants-in-aid programs.

National Environmental Policy Act (NEPA)

Specific projects that are subject to NEPA must also comply with NEPA requirements for the consideration of cultural resources. Compliance with NEPA requirements concerning cultural resources may be addressed through compliance with Section 106 of the NHPA. Reports, agreements, and correspondence documenting compliance with Section 106 of the NHPA are provided to the lead NEPA agency for a specific proposed action that is subject to NEPA.

Historic Tax Credits

Since 1976, the federal government, through the National Park Service, has provided 20-percent tax credits for private investment in rehabilitating historic properties. To qualify, a structure must be listed in the National Register of Historic Places, either individually or as a contributing building in a National Register historic district, or as a contributing building within a local historic district that has been certified by the Department of the Interior.

State

Office of Historic Preservation

The mission of the OHP and the State Historical Resources Commission (SHRC) is to preserve and enhance California's irreplaceable historic heritage as a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be

maintained and enriched for present and future generations.[6] California Public Resources Code 5024 requires consultation with the State Historic Preservation Officer (SHPO) when a project may impact historical resources located on State-owned land.

California Register of Historic Resources

The SHPO also maintains the California Register of Historic Resources (California Register). Historic properties listed, or formally designated for eligibility to be listed, on the National Register are automatically listed on the California Register (PRC Section 5024.1). State Landmarks and Points of Interest are also automatically listed. The California Register can also include properties designated under local preservation ordinances or identified through local historic resource surveys.

For a historic resource to be eligible for listing on the California Register, it must be significant at the local, state, or national level under one or more of the following four criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- It is associated with the lives of persons important to local, California, or national history;
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (California Public Resources Code).

State Historical Building Code

The State Historical Building Code provides alternative building regulations for permitting repairs, alterations and additions necessary for the preservation, rehabilitation, relocation, related construction, change of use, or continued use of a "qualified historical building or structure." These standards are intended to preserve California's architectural heritage by recognizing the unique construction issues inherent in maintaining and adaptively reusing historic buildings. The SHBC is managed by the State's Office of Historic Preservation.

Native American Heritage Act

Also relevant to the evaluation and mitigation of impacts on cultural resources is the Native American Heritage Act (NAHA) of 1976, which established the Native American Heritage Commission (NAHC) and protects Native American religious values on State property (see California Public Resources Code 5097.9). This is addressed through the City of Oakland's Standard Conditions of Approval (SCA) and any further mitigation required of projects.

Public Notice to California Native American Indian Tribes

Government Code, Section 65092 includes California Native American tribes that are on the contact list maintained by the Native American Heritage Commission in the definition of "person" to whom notice of public hearings shall be sent by local governments.

[6] Office of Historic Preservation website, http://ohp.parks.ca.gov/?page_id=1054.

Tribal Consultation Guidelines

Passed in 2004, Senate Bill (SB) 18 (Burton, D-San Francisco), now Government Code Sections 65351 and 65352, establishes a procedure to help tribes and jurisdictions define tribal cultural resources and sacred areas more clearly and incorporate protection of these places earlier into the General Plan and Specific Plan processes. The SB 18 process mirrors the federal 106 Review process used by archaeologists as part of the environmental review conducted under NEPA (36 CFR Part 800.16). While this step is not a component of CEQA review *per se*, the Lead Agency is required to request consultation with responsible and trustee agencies, such as NAHC and neighboring tribes, during the initial study and EIR process (PRC 21080.3, 21080.4).

Disposition of Human Remains (Health and Safety Code, Section 7050.5)

If an initial study identifies the existence, or the probable likelihood, of Native American human remains within the Planning Area, the Lead Agency shall work with the appropriate Native American groups or individuals as identified by the NAHC as provided in Public Resources Code 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials. Furthermore, Section 7050.5 of the California Health and Safety Code requires that construction or excavation be stopped in the vicinity of discovered human remains until the County Coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the Coroner must contact the NAHC.

Native American Graves Protection and Repatriation Act

California Health and Safety Code Sections 8010-8011 establish a State repatriation policy intent that is consistent with and facilitates implementation of the federal Native American Graves Protection and Repatriation Act. The Act strives to ensure that all California Indian human remains and cultural items are treated with dignity and respect. It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also states the intent for the State to provide mechanisms for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims and getting responses to those claims.

Local

City of Oakland General Plan Policies Regarding Historic Resources

Some General Plan policies relate to historic resources, but do not involve CEQA issues. These policies are discussed for the benefit of the decision-makers who will, as a policy matter, consider and apply them for consistency prior to issuing discretionary permits for the proposed Plan.

Historic Preservation Element

Policy 3.1: **Avoid or Minimize Adverse Historic Preservation Impacts Related to Discretionary City Actions.** The City will make all reasonable efforts to avoid or minimize adverse effects on the Character-Defining Elements of existing or Potential Designated Historic Properties which could result from private or public projects requiring discretionary City actions.

Policy 3.2: **Historic Preservation and City-Owned Properties.** To the extent consistent with other Oakland General Plan objectives, the City will ensure that all City-owned or controlled properties warranting preservation will, in fact, be preserved. All City-owned or controlled properties which may be eligible for Landmark or heritage Property designation or as contributors or potential contributors to a Preservation District will be considered for such designation.

Properties held by the City for purposes of subsequent disposition will be exempt from this policy but shall be subject to Policy 3.3.

Policy 3.3: **Designated Historic Property Status for Certain City-Assisted Properties.** To the extent consistent with other General Plan Goals, Policies and Objectives, as a condition for providing financial assistance to projects involving existing or Potential Designated Historic Properties, the City will require that complete application be made for such properties to receive the highest local designation for which they are eligible prior to issuance of a building permit for the project or transfer of title (for City-owned or -controlled properties), whichever comes first.

However, Landmark or Preservation District applications will not be required for projects which are small-scale or do not change exterior appearance.

Policy 3.5: **Historic Preservation and Discretionary Permit Approvals.** For additions or alteration to Heritage Properties or Potential Designated Historic Properties requiring discretionary City permits, the City will make a finding that: (1) the design matches or is compatible with, but not necessarily identical to, the property's existing or historical design; or (2) the proposed design comprehensively modifies and is at least equal in quality to the existing design and is compatible with the character of the neighborhood; or (3) the existing design is undistinguished and does not warrant retention, and the proposed design is compatible with the character of the neighborhood.

For any project involving complete demolition of Heritage Properties or Potential Designated Historic Properties requiring discretionary City permits, the City will make a finding that: (1) the design quality of the proposed project is at least equal to that of the original structure and is compatible with the character of the neighborhood; or (2) the public benefits of the proposed project outweigh the benefit of retaining the original structure; or (3) the existing design is undistinguished and does not warrant retention, and the proposed design is compatible with the character of the neighborhood.

Policy 3.7: **Property Relocation Rather than Demolition as Part of Discretionary Projects.** As a condition of approval for all discretionary projects involving demolition of existing or Potential Designated Historic Properties, the City will normally require that reasonable efforts be made to relocate the properties to an acceptable site, including advertising the availability of the property for at least ninety (90) days.

Policy 3.8: **Definition of "Local Register of Historic Resources" and Historic Preservation "Significant Effects" for Environmental Review Purposes.** For purposes of environmental review under the California Environmental Quality Act, the following properties will constitute the City of Oakland's Local Register of Historical Resources:[7]

All Designated Historic Properties, and

Those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance.

Until complete implementation of Action 2.1.2 (Redesignation), the Local Register of Historical Resources will also include the following designated properties: Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties.

Complete demolition of a Historical Resource will normally be considered a significant effect that cannot be mitigated to a level less than significant and will, in most cases, require preparation of an Environmental Impact Report.

A proposed addition or alteration to a Historical Resource that has the potential to disqualify a property from Landmark or Preservation District eligibility or may have substantial adverse effects on the property's Character-Defining Elements will normally, unless adequately mitigated, be considered to have a significant effect. Possible mitigation measures are suggested in Action 3.8.1. *Note: the City of Oakland's CEQA Thresholds of Significance Guidelines dated August 24, 2011 are based in part on this policy, and are provided in the Impact Analysis section.*

Action 3.8.1: **Include Historic Preservation Impacts in City's Environmental Review Regulations.** Include Policy 3.8's definitions of "Local Register of Historical Resources" and historic preservation "significant effect" in the City's Environmental Review Regulations.

Amend the regulations to include specific measures that may be considered to mitigate significant effects to a Historical Resource. Measures appropriate to mitigate significant effects to a Historical Resource may include one or more of the following measures depending on the extent of the proposed addition or alteration.[8]

Modification of the project design to avoid adversely affecting the character-defining elements of the property.

Relocation of the affected Historical Resource to a location consistent with its historical or architectural character.

[7] Any property listed on the California Register of Historical Resources or officially determined to be eligible for listing on the California Register of Historical Resources is also considered a "Historical Resource" pursuant to Section 21084.1 of the California Environmental Quality Act.

[8] Per the provisions of the California Environmental Quality Act, determination of whether mitigations are adequate to reduce a significant effect to a Historical Resource to a level less than significant will be determined by the Lead Agency on a case by case basis.

If the above measures are not feasible, then other measures may be considered, including, but not limited to, the following:

3. Modification of the project design to include restoration of the remaining historic character of the property.

4. Modification of the project design to incorporate or replicate elements of the building's original architectural design.

5. Salvage and preservation of significant features and materials of the structure in a local museum or within the new project.

6. Measures to protect the Historical Resource from effects of on-site or other construction activities.

7. Documentation in a Historic American Buildings Survey report or other appropriate format: photographs, oral history, video, etc.

8. Placement of a plaque, commemorative market, or artistic or interpretive display on the site providing information on the historical significance of the resource.

9. Contribution to a Façade Improvement Fund, the Historic Preservation Revolving Loan Fund, the Oakland Cultural Heritage Survey, or other program appropriate to the character of the resource.

Policy 3.11: Historic Preservation and Seismic Retrofit and Other Building Safety Programs.

- The City's building safety programs, including seismic retrofit programs, will seek to preserve existing or Potential Designated Historic Properties and their Character-Defining Elements. Where changes to such elements are unavoidable to achieve code compliance or other City-mandated modifications, the City will encourage owners to design the changes in a manner which minimizes visual impacts.
- Prevailing codes for the City's building safety programs when applied to existing or Potential Designated Historic Properties will be the Oakland Building Code; the Uniform Code for Building Conservation where permitted under State law; and, for qualified historical buildings, the State Historical Building Code.

Land Use Element

Policy D6.2: Reusing Vacant or Underutilized Buildings. Existing vacant or underutilized buildings should be reused. Repair and rehabilitation, particularly of historic or architecturally significant structures, should be strongly encouraged. However, when reuse is not economically feasible, demolition and other measures should be considered.

City of Oakland Planning Code

Special Regulations for Historic Properties in the Central Business Zones (Section 17.136.055)

This section establishes required findings applicable to alterations, additions, and new construction that would involve Designated Historic Properties or Potential Designated Historic Properties in Central Business District zones. Proposed development on subject sites must ensure that the character-defining elements of a historic property are not adversely affected by the proposed project, and that such projects would be visually compatible with surrounding historic properties (if located in a historic district).

Review by Landmarks Board in Certain Cases (Section 17.136.060)

Under this provision of the Planning Code, applications for regular design review in the S-7 zone, or on a designated Landmark site, are to be referred to the Landmarks Board for its recommendations. The Director of City Planning may also refer projects involving regular design review in the S-20 zone, or when a proposed addition or alteration will have a significant effect on a property's character-defining elements that are visible from a street or other public area. As noted above in the Physical Setting, the Planning Area includes 10 designated City Landmarks but no properties in S-7 or S-20 zones.

Special Regulations for Designated Landmarks (Section 17.136.070)

This section stipulates that alterations and new construction must not adversely affect the exterior features of a Landmark, or the special character, interest, or value of the Landmark or its setting. All projects involving Landmarks should conform, if possible, with the Design Guidelines for Landmarks and Preservation Districts as adopted by the City Planning Commission and/or the Secretary of the Interior's Standards for the Treatment of Historic Properties. The Director is given the authority to decide whether or not project proposals conform to these regulations. The regulations also stipulate that the owner, lessee, or other person responsible for a designated Landmark has a duty to maintain the property and keep it in good condition.

Regulations for Demolition or Removal of Designated Historic Properties and Potentially Designated Historic Properties (Chapter 17.136.075)

This chapter codifies regulations for approval of demolition or removal permits. With the exception of structures declared to be a public nuisance, Regular Design Review of the demolition or removal of a Designated Historic Property or PDHP shall only be approved after the Regular Design Review of a replacement project at the subject site has been approved. Subsequently, Regular Design Review approval for the demolition or removal of any Landmark, Heritage Property, structure rated "A" or "B" by the Oakland Cultural Heritage Survey, and structure on the City's Preservation Study List that are not in an S-7 or S-20 zone or API as determined by the Oakland Cultural Heritage Survey may be granted only if the proposal conforms to the general design review criteria, all other applicable design review criteria, and the following additional criteria:

> The applicant demonstrates that: a) the existing property has no reasonable use or cannot generate a reasonable economic return and that the development replacing it will provide such use or generate such return, or b) the applicant demonstrates that the structure constitutes a hazard and is economically infeasible to rehabilitate on its present site. For this finding, a hazard constitutes a threat to health and safety that is not immediate;

The design quality of the replacement facility is equal/superior to that of the existing facility; and

It is economically, functionally, architecturally, or structurally infeasible to incorporate the historic structure into the proposed development.

Regular Design Review approval for the demolition or removal of any structure in an S-7 or S-20 zone or API as determined by the Oakland Cultural Heritage Survey may be granted only if the proposal conforms to the general design review criteria, all other applicable design review criteria, and additional criteria, which vary based on the type of resource.

For the demolition of contributors to an S-7 or S-20 zone or API:

> The applicant demonstrates that: (a) the existing property has no reasonable use or cannot generate a reasonable economic return and that the development replacing it will provide such use or generates such return, or (b) the applicant demonstrates that the structure constitutes a hazard and is economically infeasible to rehabilitate on its present site. For this criterion, a hazard constitutes a threat to health and safety that is not immediate; and

It is economically, functionally architecturally, or structurally infeasible to incorporate the historic structure into the proposed development.

Permit approval criteria for noncontributing Preservation District properties and PDHPs are less restrictive. The Director of City Planning may postpone issuance of a demolition permit for up to 120 days (from the date of permit application) following Design Review approval.

City of Oakland's Green Building Ordinance (Ordinance No. 103040)

Under the City of Oakland's Green Building Ordinance, if new construction involves the demolition of a Historic Resource, then the new development is required to meet a higher threshold for Green Building compliance. For removal of the a historic resource and new construction, the following minimum requirements must be met:

- Complete Green Building Ordinance checklist
- Consultation with a Historic Preservation Planner
- LEED Gold for non-residential construction or 75 GreenPoint Rated points for residential construction
- Green Building Certification
- Deconstruction of the Historic Resource
- For alternate LEED for homes, same requirements as above, except certification threshold is LEED silver

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The following City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval or SCA) would apply to development under the proposed Plan.

SCA-52. Archaeological Resources[9]

Ongoing throughout demolition, grading, and/or construction

a. Pursuant to CEQA Guidelines section 15064.5 (f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are

[9] These Development Standards apply to ALL projects that involve a Grading Permit.

discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or Lead Agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find. If any find is determined to be significant, representatives of the project proponent and/or Lead Agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

b. In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measures for historical resources or unique archaeological resources are carried out.

c. Should an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measures, subject to approval by the City of Oakland. Should archaeologically-significant materials be recovered, the qualified archaeologist shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center.

SCA-53. Human Remains

Ongoing throughout demolition, grading, and/or construction

In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, in accordance with the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with the specific steps and timeframe required to resume construction activities. Monitoring, data recovery, and determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

SCA-54. Paleontological Resources

Ongoing throughout demolition, grading, and/or construction

In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards (SVP 1995,1996)). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. The paleontologist shall notify the appropriate agencies to determine

procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such a plan shall be implemented. The plan shall be submitted to the City for review and approval.

SCA-56. Compliance with Policy 3.7 of the Historic Preservation Element (Property Relocation Rather than Demolition)[10]

Prior to issuance of a demolition permit

The project applicant shall make a good faith effort to relocate the building to a site acceptable to the Planning and Zoning Division and the Oakland Cultural Heritage Survey. Good faith efforts include, at a minimum, the following:

a. Advertising the availability of the building by: (1) posting of large visible signs (such as banners, at a minimum of 3' x 6' size or larger) at the site; (2) placement of advertisements in Bay Area news media acceptable to the City; and (3) contacting neighborhood associations and for-profit and not-for-profit housing and preservation organizations;

b. Maintaining a log of all of the good faith efforts and submitting that along with photos of the subject building showing the large signs (banners) to the Planning and Zoning Division;

c. Maintaining the signs and advertising in place for a minimum of 90 days; and

d. Making the building available at no or nominal cost (the amount to be reviewed by the Oakland Cultural Heritage Survey) until removal is necessary for construction of a replacement project, but in no case for less than a period of 90 days after such advertisement.

SCA-57. Vibrations Adjacent to Historic Structures[11]

Prior to issuance of a demolition, grading or building permit

The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage the [insert historic building name] (Historic Structure) and design means and methods of construction that shall be utilized to not exceed the thresholds.

[10] These Development Standards apply to ALL projects that propose demolition of a potentially designated historic structure (PDHP) OR a CEQA Historic Resource.

[11] These Development Standards apply to ALL projects that involve construction that is adjacent to a CEQA Historic Resource or a Potential Designated Historic Property (PDHP).

SCA-E. Archaeological Resources – Sensitive Areas[12]

Prior to issuance of a demolition, grading, or building permit

The project applicant shall implement either Provision A (Intensive Pre-Construction Study) or Provision D (Construction ALERT Sheet). However, if in either case a high potential presence of historic-period archaeological resources on the project site is indicated, or a potential resource is discovered, the project applicant shall also implement all of the following provisions:

a. Provision B (Construction-Period Monitoring),

b. Provision C (Avoidance and/or Find Recovery), and

c. Provision D (to establish a Construction ALERT Sheet if the Intensive Pre-Construction Study was originally implemented per Provision A, or to update and provide more specificity to the initial Construction ALERT Sheet if a Construction ALERT Sheet was originally implemented per Provision D).

Provision A through Provision D are detailed as follows:

Provision A: Intensive Pre-Construction Study - The project applicant, upon approval from the City Planning and Zoning Division, may choose to complete a site-specific, intensive archaeological resources study prior to soil-disturbing activities occurring on the project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the project site. If that approach is selected, the study shall be conducted by a qualified archaeologist approved by the City Planning and Zoning Division. If prepared, at a minimum, the study shall include:

a. An intensive cultural resources study of the project site, including subsurface presence/absence studies, of the project site. Field studies conducted by the approved archaeologist(s) may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources;

b. A report disseminating the results of this research;

c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources.

If the results of the study indicate a high potential presence of historic-period archaeological resources on the project site, or a potential resource is discovered, the project applicant shall hire a qualified archaeologist to monitor any ground-disturbing activities on the project site during construction (see Provision B, Construction-Period Monitoring, below), implement avoidance and/or find recovery measures (see Provision C, Avoidance and/or Find Recovery, below), and prepare an ALERT Sheet that details what could potentially be found at the project site (see Provision D, Construction ALERT Sheet, below).

[12] Note: This SCA further implements (and is in addition to) the 2008 SCA for Archeological Resources (SCA 52) The SCA applies to all projects that require a grading permit and are located in archaeologically sensitive areas. Archaeologically sensitive areas include areas in which previous CEQA documents or other information identified a higher likelihood of archaeological finds. Other development standards apply to all projects that include the redevelopment or reuse of historically industrial or commercial buildings, and concern hazardous materials. See Chapter 3.13 Hazards and Hazardous Materials for more detail.

Provision B: Construction-Period Monitoring - Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT Sheet, require per Provision D, Construction ALERT Sheet, below) and the procedures to follow if any are encountered, field recording and sampling in accordance with the Secretary of Interior's Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, or preparing a report to document negative findings after construction is completed. If a significant archaeological resource is discovered during the monitoring activities, adherence to Provision C, Avoidance and/or Find Recovery, discussed below), would be required to reduce the impact to less than significant. The project applicant shall hire a qualified archaeologist to monitor all ground-disturbing activities on the project site throughout construction.

Provision C: Avoidance and/or Find Recovery - If a significant archaeological resource is present that could be adversely impacted by the proposed project, the project applicant of the specific project site shall either:

a. Stop work and redesign the proposed project to avoid any adverse impacts on significant archaeological resource(s); or,

b. If avoidance is determined infeasible by the City, design and implement an Archaeological Research Design and Treatment Plan (ARDTP). The project applicant shall hire a qualified archaeologist who shall prepare a draft ARDTP that shall be submitted to the City Planning and Zoning Division for review and approval. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if non-destructive methods are practical. The project applicant shall implement the ARDTP. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant.

Provision D: Construction ALERT Sheet - The project applicant, upon approval from the City Planning and Zoning Division, may choose to prepare a Construction ALERT Sheet prior to soil-disturbing activities occurring on the project site, instead of conducting site-specific, intensive archaeological resources pursuant to Provision A, above. The project applicant shall submit for review and approval by the City prior to subsurface construction activity an ALERT sheet prepared by a qualified archaeologist with visuals that depict each type of artifact that could be encountered on the project site. Training by the qualified archaeologist shall be provided to the project's prime contractor; any project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving); and/or utilities firm involved in soil-disturbing activities within the project site.

The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, that in the event of discovery of the following cultural materials, all work must be stopped in the area and the City's Environmental Review Officer contacted to evaluate the find: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-

cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones.

Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel.

If the project applicant chooses to implement Provision D, Construction ALERT Sheet, and a potential resource is discovered on the project site during ground disturbing activities during construction, the project applicant shall hire a qualified archaeologist to monitor any ground disturbing activities on the project site during construction (see Provision B, Construction-Period Monitoring, above), implement avoidance and/or find recovery measures (see Provision C, Avoidance and/or Find Recovery, above), and prepare an updated ALERT Sheet that addresses the potential resource(s) and other possible resources based on the discovered find found on the project site.

Mitigation Measures for the Proposed Amendments to the Urban Renewal Plan for the Central District (2011)

The Planning Area falls entirely within two of the City's Redevelopment Project Areas: Central City East and the Central District. The plans for these project areas are described below. These Redevelopment Areas, and the effects of recent State legislation regarding Redevelopment, are described more fully in Section 3.1: Land Use.

The Central District covers the western part of the Planning Area and includes the Chinatown core. The Central District Urban Renewal Plan (CDURP) was adopted in 1969, and subsequently amended on numerous occasions. In April 2012 the City adopted two amendments that extended the duration of the CDURP to be in effect until 2023.

The EIR for the Proposed Amendments to the Central District Urban Renewal Plan (2011) included a mitigation measure that also applies to the portion of the Lake Merritt Station Area Plan Planning Area that is within the Central District, as follows:

Mitigation Measure CUL-1:

a) Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures.

- *Avoidance***.** The City shall ensure that all future redevelopment activities allowable under the Proposed Amendments, including demolition, alteration, and new construction, would avoid historical resources (i.e., those listed on federal, state, and local registers).
- *Adaptive Reuse***.** If avoidance is not feasible, adaptive reuse and rehabilitation of historical resources shall occur in accordance with the *Secretary of Interior's Standards for the Treatment of Historic Properties*.

- *Appropriate Relocation.* If avoidance or adaptive reuse *in situ* is not feasible, pursuant to SCA CUL-4: Compliance with Policy 3.7 of the Historic Preservation Element (Property Relocation Rather than Demolition), redevelopment projects able to relocate the affected historical property to a location consistent with its historic or architectural character could reduce the impact less than significant (Historic Preservation Element Action 3.8.1), unless the property's location is an integral part of its significance, e.g., a contributor to a historic district.

b) Future Site-specific Surveys and Evaluations.

Although most of the Project Area has been surveyed by the City of Oakland's OCHS, evaluations and ratings may change with time and other conditions. As such, there may be numerous other previously unidentified historical resources which would be affected by future redevelopment activities, including demolition, alteration, and new construction. For any future redevelopment project that would occur on or immediately adjacent to buildings 50 years old or older, and would occur between 2012 and 2023 (i.e., buildings constructed prior to 1973), the City shall require specific surveys and evaluations of such properties to determine their potential historical significance at the federal, state, and local levels. Intensive-level surveys and evaluations shall be completed by a qualified architectural historian who meets the *Secretary of the Interior's Standards* for architectural history. For all historical resources identified as a result of site-specific surveys and evaluations, the City shall ensure that future redevelopment activities, including demolition, alteration, and new construction, would avoid, adaptively reuse, and/or appropriately relocate such historical resources in accordance with measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures), above.

c) Recordation and Public Interpretation.

If measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically significant Structures) is determined infeasible as part of any future redevelopment scenarios, the City shall evaluate the feasibility of recordation and public interpretation of such resources prior to any construction activities which would directly affect them. Should City staff decide recordation and or public interpretation is required, the following activities would be performed:

- *Recordation*. Recordation shall follow the standards provided in the National Park Service's Historic American Building Survey (HABS) program, which requires large-format photo-documentation of historic structures, a written report, and measured drawings (or photo reproduction of original plans if available). The photographs and report would be archived at local repositories, such as public libraries, historical societies, and the Northwest Information Center at Sonoma State University. The recordation efforts shall occur prior to demolition, alteration, or relocation of any historic resources identified in the Project Area, including those that are relocated pursuant to measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically-significant Structures). Additional recordation could include (as appropriate) oral history interviews or other documentation (e.g., video) of the resource.
- *Public Interpretation*. A public interpretation program would be developed by a qualified historic consultant in consultation with the Landmarks Preservation Advisory Board and City staff, based on a City-approved scope of work and submitted to the City for review and approval. The program could take the form of plaques, commemorative markers, or artistic or interpretive displays which explain the historical significance of the properties to the general public. Such displays would be incorporated into project plans as they are being developed, and would

typically be located in a publicly accessible location on or near the site of the former historical resource(s). Public interpretation displays shall be installed prior to completion of any construction projects in the Project Area.

Photographic recordation and public interpretation of historically significant properties prior to their demolition or alteration does not typically mitigate the loss of potentially historic resources to a less than significant level [CEQA Section 15126.4(b)(2)].

d) Financial Contributions.

If measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically significant Structures) and measure "b" (Future Site-specific Surveys and Evaluations) are not satisfied, the project applicants of specific projects facilitated by the Proposed Amendments shall make a financial contribution to the City of Oakland, which can be used to fund other historic preservation projects within the Project Area or in the immediate vicinity. Such programs include, without limitation, a Façade Improvement Program, or the Property Relocation Assistance Program.

This mitigation would conform to Action 3.8.1(9) of the Historic Preservation Element of the City of Oakland General Plan. Contributions to the fund(s) shall be determined by staff at the time of approval of site-specific project plans based on a formula to be determined by the Landmarks Preservation Advisory Board. However, such financial contribution, even in conjunction with measure "c" (Recordation and Public Interpretation), would not reduce the impacts to less than significant levels.

Mitigation Measures for the Land Use and Transportation Element (LUTE) (1998)

Potential impacts to archeological and paleontological resources were analyzed as part of the LUTE EIR. The LUTE EIR addressed potential impacts to cultural resources citywide. Mitigation measures were established; these have translated to the development of SCA, zoning provisions, and design guidelines and procedures.

Mitigation Measure G.2:

Establish criteria and interdepartmental referral procedures for determining when discretionary City approval of ground-disturbing activities should be subject to special conditions to safeguard potential archeological resources.

Mitigation Measure G.3a:

Amend the Zoning Regulations text to incorporate the new preservation regulations and incentives.

Mitigation Measure G.3b:

Develop and adopt design guidelines for Landmarks and Preservation Districts.

Mills Act Program

Under the Mills Act, local governments may offer property tax reductions in exchange for doing work that will extend the lifespan of historic buildings and/or improve their exterior physical appearance. The City of Oakland participates in the Mills Act program, and has established eligibility criteria, application procedures and contract terms.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element would largely occur as infill, in an urbanized and built-out City. The Housing Element EIR found that compliance with the goals, policies, and programs of the City's General Plan; Municipal Code (Title 17), SCAs, and LUTE EIR Mitigation Measure G.2 would ensure that development under the Housing Element would comply with federal and state laws protecting cultural resources, resulting in a less than significant impact. In addition, should any sensitive resources be discovered during the construction of future development projects under the Housing Element, all building activity should cease until a resource mitigation plan and monitoring program is prepared by a qualified professional as described in SCAs. As such, the Housing Element EIR concluded that development at the identified opportunity sites would have a less than significant impact on cultural resources.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on a historical resource list (including the California Register of Historical Resources, the National Register of Historical Resources, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);

Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

Disturb any human remains, including those interred outside of formal cemeteries.

In the City of Oakland, a historical resource under CEQA is a resource that meets any of the criteria set forth under "Historic and Potentially Historic Properties in the Planning Area" in the Physical Setting section of this chapter.

Each criterion is discussed in greater detail below:

1. California Register of Historical Resources

The buildings on the subject site (a) are listed in the California Register of Historical Resources; and (b) have been determined eligible by the State Historical Resources Commission for listing in the California

Register of Historical Resources. These buildings are automatically eligible for listing in the California Register (pursuant to Public Resources Code section 5024.1(d0(1) and (2) and 14 Cal.Code Regs. Section 4851(a))) as they have been listed in or formerly determined eligible for the National Register of Historic Places or the California Historic Landmarks program (Landmarks 770 or higher).

2. City of Oakland Local Register of Historical Resources

A "local register of historical resources" means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution, unless the preponderance of evidence demonstrates otherwise.

In March 1994, the Oakland City Council adopted a Historic Preservation Element of the General Plan (amended July 21, 1998). The Historic Preservation Element sets out a graduated system of ratings and designations resulting from the Oakland Cultural Heritage Survey (OCHS) and Oakland Zoning Regulations. The Element provides the following policy related to identifying historic resources under CEQA:

- Policy 3.8 Definition of "Local Register of Historical Resources" and Historic Preservation "Significant Effects" for Environmental Review Purposes: For purposes of environmental review under the California Environmental Quality Act, the following properties will constitute the City of Oakland's Local Register of Historic Resources:
  - All Designated Historic Properties (Landmarks, Heritage Properties, Study List Properties, Preservation Districts, and S-7 and S-20 Preservation Combining Zone Properties); and
  - Those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance.

The Oakland Cultural Heritage Survey uses a five-tier rating system for individual properties, ranging from "A" (highest importance) and "B" (major importance) to "E" (of no particular interest). This letter rating is termed the Individual Property Rating of a building and is based on the following criteria:

- ***Visual Quality/Design:*** Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.
- ***History/Association:*** Association of person or organization, the importance of any event, association with patterns of history, and the age of the building.
- ***Context:*** Continuity and familiarity of the building within the city, neighborhood, or district.
- ***Integrity and Reversibility:*** Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Properties with conditions or circumstances that could change substantially in the future are assigned both an "existing" and a "contingency" rating. The existing rating (UPPER CASE letter) describes the property under its present condition, while the contingency rating (lower case letter, if any), describes it under possible future circumstances.

3. State Historic Resources Survey/Inventory

A resource evaluated and determined by the State Historic Preservation Office to have a significance rating of 1-5 on a Department of Parks and Recreation Form 523 (historic resources survey) is presumed to be a historical resource unless the preponderance of evidence demonstrates it is not.

4. Meets Criteria for Listing in the California Register of Historical Resources

California Register of Historic Resources

In order for a resource to meet the criteria for listing in the California Register, it must satisfy all of the following three provisions:

A. It meets one of the following four criteria of significance (PRC 5024.1(c) and CEQA Guidelines 15064.5):

   1. The resource "is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;"
   2. The resource "is associated with the lives of persons important in our past;"
   3. The resource "embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values;" or
   4. The resource "has yielded, or may be likely to yield information important in prehistory or history" (this criterion applies primarily to archaeological sites).

B. The resource retains historic integrity;[13] and

C. It is 50 years old or older (except where it can be demonstrated that sufficient time has passed to understand the historical importance of the resource).

National Register of Historic Places

Generally, a resource eligible for listing on the National Register of Historic Places is also eligible for listing on the California Register. The National Register of Historic Places evaluates a resource's eligibility for listing based on the following four criteria: districts, sites, buildings, structures, and objects.

- ***Criterion A (Event):*** Resources that are associated with events that have made a significant contribution to the broad patterns of our history.
- ***Criterion B (Person):*** Resources that are associated with the lives of persons significant in our past.
- ***Criterion C (Design/Construction):*** Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- ***Criterion D (Information Potential):*** Resources that have yielded, or may be likely to yield, information important in prehistory or history.

Significance: To be listed on the NRHP, a property must be shown to be "significant" at the local, state, or national level under one or more National Register criteria. Mere association with historic events or trends, individuals, or styles is not enough: the property's specific association must be considered important as well.

Integrity: The property must also possess historic "integrity." Integrity is defined as "the ability of a property to convey its significance." The National Register criteria recognize seven qualities that define integrity: location, design, setting, materials, workmanship, feeling, and association.

- "Location" refers to the place where the historic property was constructed.
- "Design" is the combination of architectural elements that create the form, structure and style of the property.
- "Setting" is the physical environment surrounding a historic property.
- "Materials" are the original physical components that were combined during a particular period in time and in a particular pattern to form the historic property.
- "Workmanship" is the physical evidence of the building crafts and skills of a particular culture during a given period.
- "Feeling" is a property's expression of the aesthetic or historic sense of a particular period of time.
- "Association" is the direct link between an important historic event or person and a historic property.

Special considerations apply to moved or reconstructed properties, cemeteries, religious or commemorative properties, and properties achieving significance within the past 50 years.

5. Determined by a Lead Agency to be Historically Significant

The fact that a resource is not considered historic pursuant to the above four criteria does not preclude a Lead Agency from determining that the resource is nonetheless a "historical resource" for CEQA purposes.

Here, the buildings are considered to be historically significant because they have been determined by the City of Oakland to be a historic resource.

METHODOLOGY AND ASSUMPTIONS

Historic resources from the City of Oakland's Local Register were identified, including all designated historic properties (Landmarks, Preservation Districts, etc.), and Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance (API). The Northwest Information Center (NWIC) of the California Historic Resources Information system at Sonoma State University in Rohnert Park was emailed a records search request on March 20, 2012. The NWIC is an affiliate of the State of California Office of Historic Preservation and is the official State repository of cultural resources reports and records, for a 16-county area. A response, dated April 19, 2012, was received. (See Appendix G.)

The Native American Heritage Commission (NAHC) was contacted on March 2, 2012, for a contact list of local tribal representatives who may have knowledge of Native cultural resources within the Planning Area. A response from the NAHC dated March 8, 2012, was received. The local tribal representatives identified by the NAHC were contacted in March 2012 via first class certified mail and email.

SUMMARY OF IMPACTS

Impact CUL-1 – Historic Resources

The Planning Area contains 187 properties that appear to meet the City of Oakland's criteria for significant historic resources. Resources include four and two places listed on the National and State Registers, respectively, 10 City of Oakland Landmark buildings or sites, and 27 other City-designated historic properties. Other historic resources that are rated "A" or "B" on the Oakland Cultural Heritage Survey are Potential Designated Historic Properties within City-designated Areas of Primary Importance, or are listed in the California Historic Property Directory and given a rating that the City of Oakland considers potentially significant.

Three of these properties are identified as potential development sites under the Station Area Plan:

- Kaiser Auditorium;
- 125, 2nd Avenue (OUSD Administration Building); and
- 121 East 11th Street (Ethel Moore Building).

The Kaiser Auditorium is expected to be adaptively reused rather than redeveloped. The two OUSD buildings (125 2nd Avenue and 121 East 11th Street) are potentially "B"-rated by the OCHS, and should be treated as Local Register properties, according to the City of Oakland.

Existing SCAs and regulations protecting historical resources, as well as proposed Plan policies and design guidelines, would mitigate any potential impact of *overall* redevelopment in the Planning Area, but will not be able to reduce the potential impact of demolition of OUSD or County property to a level that is less than significant. The proposed Plan includes an additional mitigation measure to implement Historic Preservation Element policy 3.8, and provides for multiple measures and approaches. Some approaches could reduce the impacts on historic resources to a less than significant level, and others could reduce impacts on historic properties, but not to a less than significant level. Only avoidance of direct effects to these structures would reduce the impacts on historic resources to a less than significant level. If demolition or substantial alteration of historically-significant resources is identified by the City as the only feasible option for development in the Planning Area, the impact of development under the proposed Plan would be considered significant and unavoidable. This finding should be viewed as conservative, as it is not certain that historic resources on opportunity sites will be demolished or otherwise impacted.

Impact CUL-2 – Archaeological Resources

The Planning Area includes six recorded archaeological resources, and is considered to have a high potential for having additional, unrecorded Native American resources. Thus it may be considered likely that additional archaeological or Native American resources may be discovered. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCA, ensure that this potential impact is less than significant.

Impact CUL-3 - Human Remains

There may be potential for construction activities from new development under the proposed Plan to impact human remains in the Planning Area. If human remains of Native American origin are discovered during project construction, the developer and/or City staff would be required to comply with State laws relating to the disposition of Native American burials, as well as follow the City of Oakland's SCA 53: Human Remains, making this potential impact less than significant.

Impact CUL-4 – Paleontological Resources

The geological units underlying the Planning Area are considered to have a low to moderate paleontological sensitivity. It is possible that fossils would be discovered during excavation facilitated by the Station Area Plan. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCA, make these potential impacts less than significant.

Cumulative Impact CUL-5 – Historic Resources

Cumulative analysis includes a review of the proposed Station Area Plan and its relationship with past, present, and reasonably foreseeable maximum development in Planning Area and the vicinity, taken as the five-block radius around the Planning Area. In addition to projected Station Area Plan development on opportunity sites in the Planning Area, there are 12 projects on the City of Oakland's Major Active Development Projects list within the Planning Area and its vicinity. Three of these projects would affect known historic resources. Two of these projects would restore, adapt, and reuse historic resources as part of new development, while demolition of a historic resource is proposed as part of the Oak to Ninth Avenue development. Potential impacts on historic resources within the Planning Area are considered significant and unavoidable as described under Impact CUL-1, even with existing City of Oakland regulations and proposed Plan policies and mitigation that support conservation of historic resources. The overall cumulative impact of active development projects and projected development under the Station Area Plan is expected to be significant and the proposed Plan's contribution to the impact is cumulatively considerable.

IMPACTS

Impact CUL-1

Future development under the proposed Plan would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5. (*Significant and Unavoidable*)

Following CEQA Guidelines, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of a historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on a historical resource list.

As one of the earliest-developed parts of Oakland, the Planning Area contains a large number of historical resources. The Planning Area contains 187 properties that meet the City of Oakland's resource significance criteria, as outlined above (as noted in Table 3.8-1, the OCHS has determined that the

preponderance of evidence shows that three properties listed in the table are not CEQA historic resources). Many of these properties meet multiple criteria for potential resource significance; most commonly, they are considered Potential Designated Historic Properties by the City of Oakland and/or have ratings of 1 through 5 on the State's Historical Resources Survey. These historic resources include:

- Two properties listed on the California Register of Historical Resources;
- 10 sites or buildings designated as Landmarks by the City of Oakland;
- 27 other City-Designated Historic Properties;
- 44 properties rated "A" (Highest Importance) or "B" (Major Importance) on the City's Cultural Heritage Survey;
- 121 other properties considered by the City to be Potential Designated Historic Properties and located within an API; and
- 108 properties listed on the State of California's Historical Resources Survey and given a rating of 1 through 5.

Reasonably foreseeable maximum development under the proposed Station Area Plan could result in the future demolition, destruction, relocation, or alteration of historical resources that meet the City of Oakland's resource significance thresholds. **Figure 3.8-2** shows all of the sites that qualify as historical resources, along with the sites identified as most likely to develop ("opportunity sites") during the planning period. Only three properties that meet the City of Oakland's historic resource criteria are considered opportunity sites, as described below. These sites are viewed by this analysis as most vulnerable to potential historic resource impacts.

Opportunity Sites and Historic Resources

The Kaiser Auditorium (formerly the Oakland Municipal Auditorium) is an Oakland-designated Landmark, and has been rated "A" (Highest Importance) on the OCHS. The City-owned building, built between 1913 and 1915, includes an arena, a theater, and a large ballroom. The building has been vacant since 2006, and is identified as an opportunity site. However, there is a strong expectation that the building will be retained and repurposed for a new use; development that would harm the historic resource would be highly unlikely given its public ownership and the strict review rules that apply to City-designated Landmarks under Section 17.136.070 (Special Regulations for Designated Landmarks) and 17.136.075 (Regulations for Demolition or Removal of Designated Historic Properties or Potentially Designated Historic Properties), and Policy 3.2 of the LUTE (Historic Preservation of City-Owned Properties).Two Oakland Unified School District (OUSD) buildings are potential historic resources that overlap with opportunity sites.

OUSD's Paul Robeson Administration Building (1025, 2nd Avenue), built in 1928, and the Ethel Moore Building (121, East 11th Street), dating to 1922, are potentially rated "B" by the OCHS and should be treated as Local Register buildings, according to the City of Oakland. These buildings are located on what is considered to be a potential site for new development under the proposed Station Area Plan.

While other sites in the Planning Area may possibly be developed during the planning period, the opportunity sites have been identified as the most likely to be developed, based on their vacant status or low-intensity current use and other factors, including local historic rating.

In addition to the existing historic resources, the Planning Area may contain sites or structures that have not yet been evaluated for historical significance at the federal, state, or local levels, or which will become eligible for listing over the course of the planning period. Thus there may be other properties in the Planning Area that are potentially eligible for listing and could be impacted by new development under the Station Area Plan, including physical demolition, destruction, relocation, or alteration.

Historic Resources Regulations

Policy 3.5 in the General Plan Historic Preservation Element requires the City to make findings with regard to the quality of an existing historic resource and the quality of the proposed design before approving development, where discretionary action is required. Policy 3.7 requires that a developer attempt to relocate rather than demolish historic resources; this policy is reinforced by SCA 56: Property Relocation Rather than Demolition. In addition, SCA 57: Vibrations Adjacent to Historic Structures, would provide some level of protection for historical properties that may be affected by implementation of the proposed Station Area Plan.

Under Planning Code provisions, any proposed development involving exterior alteration to a character-defining element of a designated historic property or PDHP in Central Business District zones, which cover most of the Planning Area and nearly all of its historic resources, must ensure that character-defining elements are not adversely affected. In any zone, any project involving a Landmark must respond to the Design Guidelines for Landmarks and Preservation Districts as adopted by the City Planning Commission and/or the Secretary of the Interior's Standards for the Treatment of Historic Properties. Any proposed change to a City Landmark or property in the S-7 zone that requires design review must be referred to the Landmarks Preservation Advisory Board.

Chapter 17.136.075 requires that demolition or removal of any Landmark, Heritage Property, structure rated "A" or "B" by the Oakland Cultural Heritage Survey, and structure on the City's Preservation Study List that are not in an S-7 or S-20 zone or API requires certain findings. The applicant must demonstrate that either the property has no reasonable use, or that it constitutes a hazard; that the design quality of the replacement is equal/superior to the existing facility; and that it is economically, functionally, architecturally, or structurally infeasible to incorporate the historic structure into the proposed development. The Kaiser Auditorium is the only property in the Planning Area that is considered a development opportunity site and meets the criteria for which this high threshold applies.

Mitigation Measure CUL-1, adopted as part of the Central District Urban Renewal Plan EIR in 2011, requires that the City ensure that redevelopment activities avoid historical resources, defined as resources listed on federal, state, or local registers. If avoidance is not feasible, adaptive reuse following the *Secretary of the Interior's Standards for treatment of Historic Properties* is the second option. If this too is not feasible, redevelopment projects may relocate the historic resource to an appropriate location in order to have a less than significant impact. If none of these options are determined feasible, the City requires that historical resources be recorded and that public interpretation be provided. In addition, future redevelopment projects that include or are adjacent to structures at least 50 years old are required to undertake a site-specific evaluation of potential historical resources, or to make a financial contribution to the City to fund historic preservation in the Redevelopment Area. These mitigation measures apply in the portion of the Planning Area that falls within the Central District Redevelopment Area, which covers most of the Planning Area west of Fallon Street, as well as the Kaiser Auditorium site and southern shore of Lake Merritt. The requirement for site surveys is limited to the years 2012 to 2023. These City of

Oakland regulations provide detailed safeguards that aim to achieve the avoidance of impacts to historic resources.

Proposed Plan Policies

The proposed Station Area Plan includes a variety of policies that promote the preservation of historic resources by providing information about existing incentives such as Federal Historic Preservation Tax credits; revising the Planning and Building Code; and updating the historic status of buildings and districts. The proposed Plan requires that Secretary of the Interior standards for the treatment of historic properties be used for properties that meet the City's CEQA criteria.

The Plan also seeks to minimize potential impacts on historic resources by establishing height limits in and adjacent to Areas of Primary Importance where height is a character-defining feature, and providing design guidelines that seek to ensure compatible design. The Plan proposes a 45-foot height limit for nearly all of the 7th Street/Harrison Square historic district. This would limit the appeal of replacing existing development, favor wood frame construction, and result in buildings that are slightly higher but comparable in scale to the neighborhood. A 45-foot base height limit is proposed for much of the Chinatown Commercial district and the vicinity of Madison Square Park, ensuring that a consistent scale will be maintained at street level, with towers stepped back. An 85-foot height limit is provided for the King Block, and an 85-foot base height limit is provided for much of the rest of the Upper Chinatown and 14th Street Corridor areas, reinforcing the existing scale of the area's most visible buildings, such as the Hotel Oakland. **Figure 3.8-3** shows the proposed Height Areas and the APIs.

Proposed height limits are intended to coincide with the updating of zoning districts and the Planning Code. They would be complemented by design guidelines that provide detailed guidance on building massing and scale and compatibility with existing buildings and historic areas. New development and major alterations will be required to demonstrate conformance with the intent of the Guidelines. Acting together, height limits and design guidelines help to ensure that future development is compatible with its context and adjacent historic resources. While proposed Station Area Plan policies and existing regulations would mitigate any potential impact of overall development in the Planning Area, they will not be able to mitigate potential development on specific, identified opportunity sites, as discussed below.

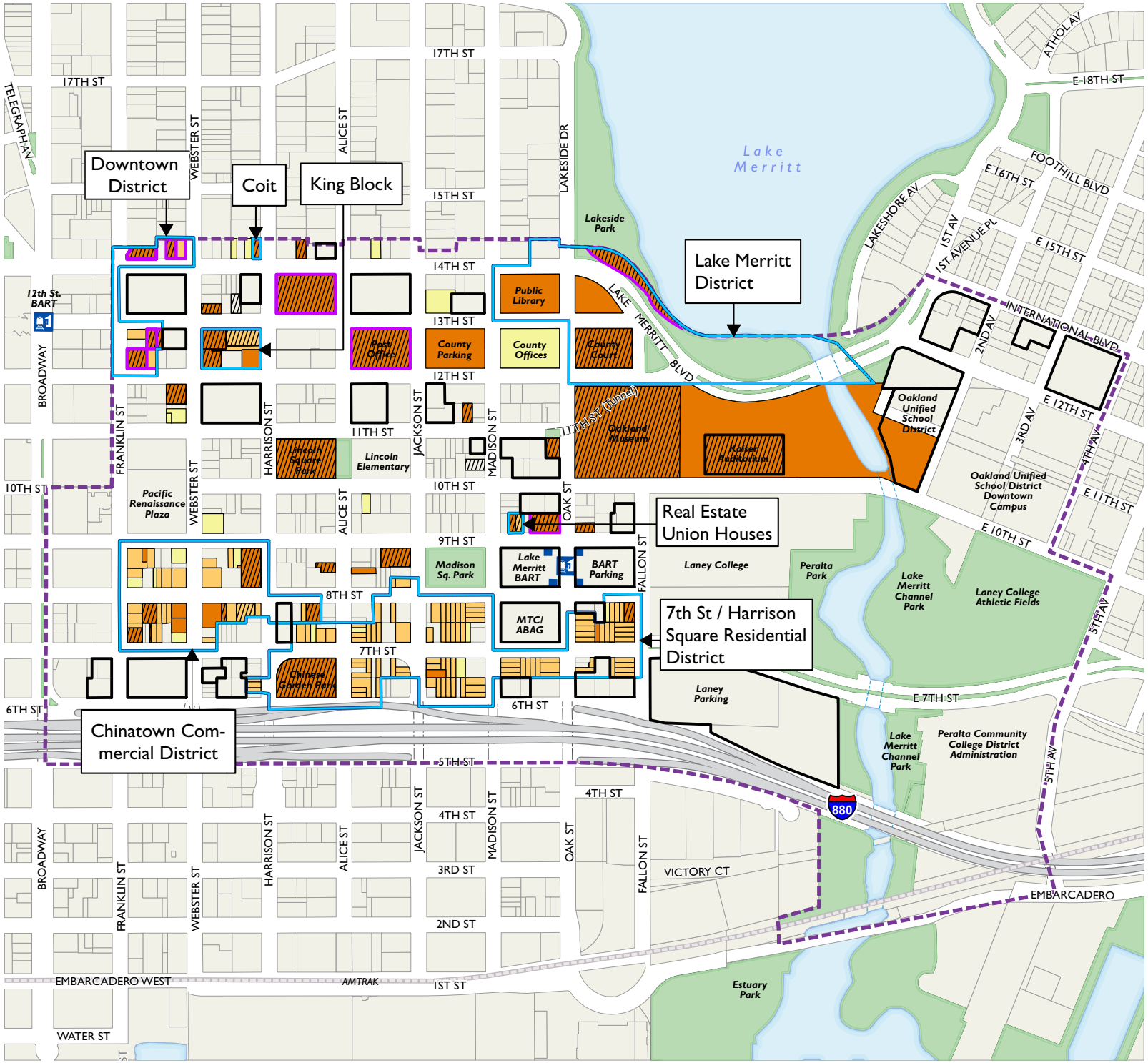

Fig. 3.8-2
Historic Resources & Opportuniy Sites

- BART Station Entrance
- BART Station
- Opportunity Sites
- Areas of Primary Importance
- Listed on State and/or National Register
- City of Oakland Designated Historic Property
- Rated "A" or "B" on Oakland Cultural Heritage Survey
- Other Potential Designated Historic Property within Area of Primary Importance
- Other Potential Historic Resources (mostly properties rated 1-5 in the California Historic Property Directory)
- Existing and Planned Parks
- Planning Area

There are no City-designated Heritage Properties, Study List Properties, Preservation Districts, or S-7 or S-20 Preservation Combining Zone properties in the Planning Area.

0 100 300 500 750 1,000
FEET

Source: City of Oakland and Dyett and Bhatia, 2009.

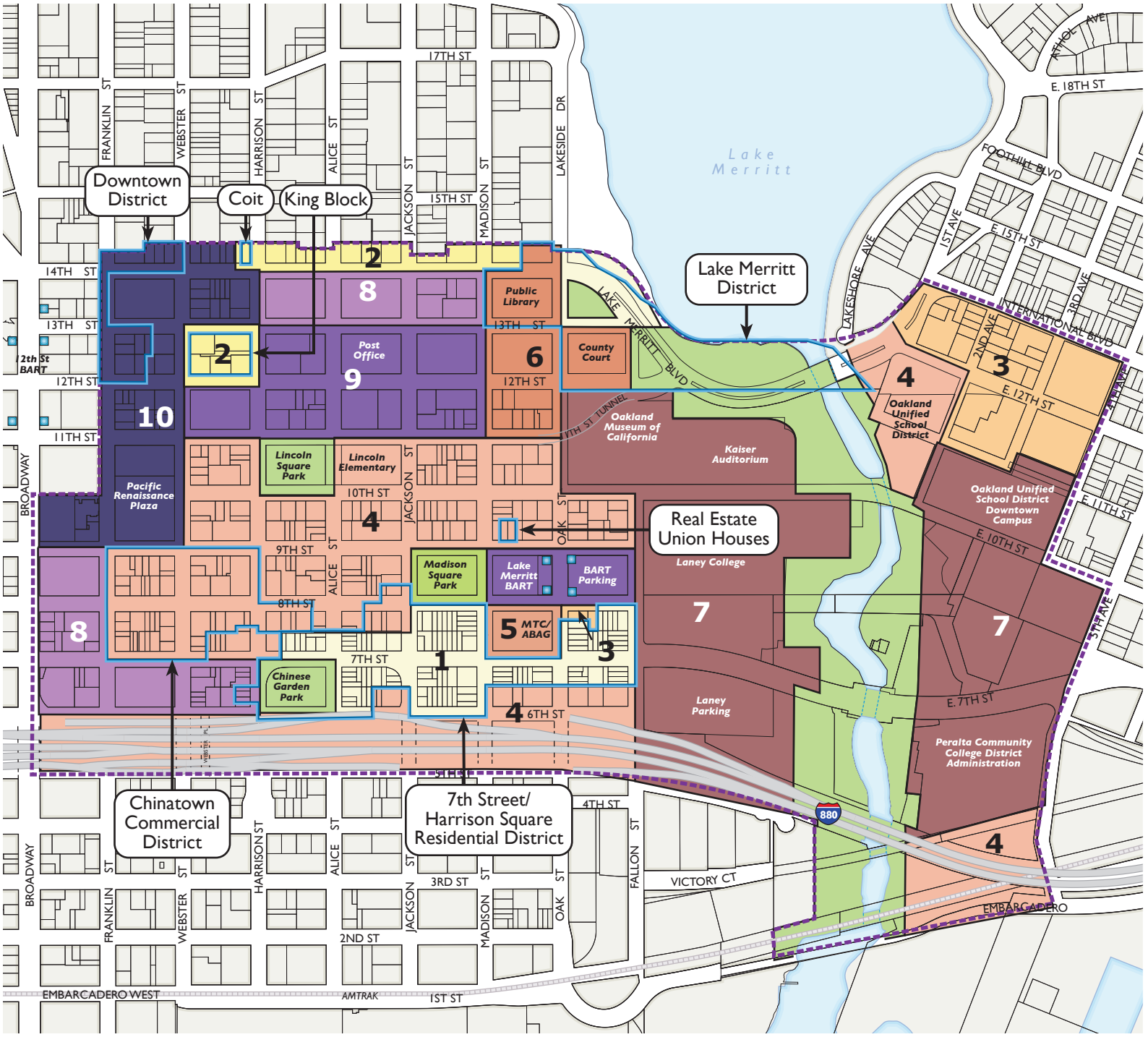

Figure 3.8-3
Proposed Height Areas and Historic Areas of Primary Importance

- 1 — 45 Ft Total
- 2 — 85 Ft Total
- 3 — 45 Ft Base 175 Ft Total
- 4 — 45 Ft Base 275 Ft Total
- 5 — 55 Ft Base 275 Ft Total
- 6 — 85 Ft Base 175 Ft Total
- 7 — 275 Ft Total
- 8 — 85 Ft Base 275 Ft Total
- 9 — 85 Ft Base 400 Ft Total
- 10 — 125 Ft Base No Height Limit
- Open Space
- Historic District of Primary Importance
- Planning Area

Impacts from Adjacent Development or Reuse

Incompatible new construction immediately adjacent to identified historic resources, as well as inappropriate reuse of such resources, could occur in the Planning Area. However, implementation of Specific Plan Design Guidelines, such as DG-58 and DG-59, which encourage sensitive integration of new development in the immediate vicinity of historic buildings, as well as DG-62 and DG-63, which states that new buildings should complement and reinforce architectural details and that new building form should be compatible with existing buildings, would reduce impacts to a less-than-significant level. No mitigation measures would be necessary.

Site-Specific Effects

The proposed Plan's policies and design guidelines, in addition to existing regulations and Standard Conditions of Approval, would help to reduce the level of impacts on historic resources within the Planning Area. Most of the 4,900 new residential units, 404,000 square feet of additional retail, and 1,230,000 square feet of office uses that would occur over the next 25 years would happen on parcels that do not contain CEQA historic resources. However, under the proposed Plan there is a high potential for redevelopment of the OUSD property on 2nd Avenue, which contains two CEQA historic resources. As noted earlier, the Kaiser Auditorium is also identified as an opportunity site with a significant historic resource; however, it is expected to be adaptively reused rather than redeveloped. Therefore, site-specific significant impacts on historic resources are conservatively assumed to result from Plan implementation.

Implementation of Oakland Municipal Code 17.136.075, *Regulations for Demolition or Removal of Designated Historic Properties and Potentially Designated Historic Properties,* as well as the City of Oakland's SCA 56: Property Relocation Rather than Demolition, and SCA 57: Vibrations Adjacent to Historic Structures, as well as proposed Plan policies, would provide some level of protection for historical properties that may be affected by implementation of the proposed Plan. However, additional mitigation would be necessary to further reduce potential impacts to the historical resources located on opportunity sites identified above.

Mitigation Measure CUL-1 implements Historic Preservation Element policy 3.8 and includes multiple measures and approaches. Some approaches could reduce impacts on historic resources to a less than significant level, and others could reduce impacts on historic properties, but not to a less than significant level. Only avoidance of direct effects to these structures, as would be achieved through measure "a" below, would reduce the impacts to historic resources to a less than significant level. Therefore, if demolition or substantial alteration of historically-significant resources is identified by the City as the only feasible option to development in the Planning Area, even with implementation of measure "b" and measure "c", the impact of development under the proposed Plan would be considered significant and unavoidable.

This finding should be viewed as conservative. It is not known whether the historic resources located in question will be demolished or otherwise impacted. Nevertheless, it must be recognized as a possibility.

Proposed Policies that Mitigate the Impact

Community Resources Policies

CR-1 **Owner information.** Inform all owners of Landmark properties, properties in Areas of Primary Importance and Areas of Secondary Importance, and Potential Designated Historic Properties

(PDHPs) of: (a) their property's classification under Historic Resource programs, and (b) benefits and incentives available for historic properties.

CR-4 **Adaptive reuse.** Update the Planning and Building Code in order to promote the adaptive reuse of historic resources by allowing the relaxation of certain Building or Planning Code requirements that do not impact safety but which may make reuse more viable. Require that adaptive reuse of historic resources that meet the City of Oakland's CEQA thresholds follow Secretary of the Interior standards.

CR-5 **Relocation sites.** Identify vacant sites in existing historic districts that may be suitable relocation sites for historic structures in the Planning Area that are currently not within a historic district.

CR-6 **Heritage Survey update.** Update and review the historic status of individual buildings and historic districts in the Planning Area.

Land Use Policies

LU-14 **Publicly owned sites.** Contribute to the entertainment, educational and cultural activity hub and activate the southern edge of Lake Merritt Boulevard by reusing historic publicly owned sites.

LU-15 **Kaiser Auditorium reuse.** Promote reuse of the Kaiser Auditorium to activate the southern edge of the new Lake Merritt Boulevard and to complete the entertainment, educational and cultural hub. Preliminary ideas for reuse of the Kaiser Auditorium include reuse as a community center and/or a performance arts center as it has been in the past.

Design Guidelines

Historic Resources

DG-58 **Contribute to Historic Districts.** New buildings developed within historic districts or adjacent to historic buildings should seek to contribute to the existing historic and architectural character of the area, while also seeking to be recognized as products of their own time. Consider how the style, massing, rhythm, setbacks and material of new development may affect the character of adjacent resources.

DG-59 **Complement and Reinforce the Scale.** The massing and scale of new buildings within historic districts or adjacent to historic buildings should reinforce the existing rhythm of buildings and spaces between buildings. The predominant parcel pattern for the Chinatown API is 25- to 50-foot parcel frontages, the parcel pattern for the 7th Street API is 25-foot parcel frontages. The King Block has typically larger parcel sizes, but frontage is typically broken into smaller increments.

DG-60 **Complement and Reinforce the Street Wall.** Locate new buildings within historic districts or adjacent to historic buildings to complement the existing street wall. Site buildings such that the setback of a new building should reinforce the prevailing average setbacks of adjacent historic buildings.

DG-61 **Complement and Reinforce Building Articulation.** Entrances, stoops, porches, and other projections should be incorporated into new buildings within historic districts or adjacent to historic

buildings where they relate to the pattern of existing adjacent buildings and contribute to a consistent rhythm and continuity of features along the street. For instance, front stoops and porches occur on many historic buildings in the 7th Street API and could be a compatible feature on new buildings.

DG-62 **Complement and Reinforce Architectural Details.** The architectural details of new buildings within historic districts or adjacent to historic buildings should relate to existing buildings. Such details may include lintels, cornices, arches, chimneys, and ironwork. Since there is such a large variety of styles and details within the historic districts in the Planning Area, new development must specifically consider adjacent properties.

DG-63 **Building form.** The complexity of the form and shape of new buildings within historic districts or adjacent to historic buildings should be compatible with existing adjacent buildings. The degree to which a new building is simple or complex in form and shape should be based upon the dominant characteristics of architecture of the area. New buildings in areas where simpler forms prevail should reflect that simplicity, while the existence of more complex forms (e.g., Queen Anne and other Victorian styles) allows for more richness and variation.

DG-64 **Chinatown Commercial District API.** The architectural details of new buildings within or adjacent to the Chinatown Commercial District API should relate to existing distinguishing features of the district. The Chinatown Commercial District is characterized by small-scale, early 20th-century commercial buildings. Uses are generally retail and commercial on the ground floor, with residences or offices on upper floors. Similar architectural and façade features are visible in remodelings done in the 1960s and 1970s. The area is characterized by high density and lively sidewalk activity.

DG-65 **7th Street/Harrison Square Residential Historic District API.** The architectural details of new buildings within or adjacent to the 7th Street/Harrison Square Residential Historic District API should relate to existing distinguishing features of the district. Most of the buildings in the 7th Street/Harrison Square Residential District are detached one- or two-story wood frame structures set back from the sidewalk line, including many Victorian and Colonial Revival cottages and houses. The district began as a residential area and has largely maintained that character to this day. Except for the intrusions of some industrial buildings and apartment buildings, the district is unified in scale, apparent density, use, and relationship of buildings to lots.

DG-66 **Pitched Roofs in the 7th Street API.** New development at the predominant height in the 7th Street Historic API should include a pitched roof (which is included in the total height of the building). Roof pitch should be consistent with or complementary to adjacent historic buildings.

DG-67 **Adaptive Reuse.** Retain and integrate historic and architecturally significant structures into larger projects with adaptive reuse. When adapting or altering historic resources, consider the following:

- Work within the existing building envelope is recommended; where additions are desired, they should generally be located on a secondary or rear façade.
- Avoid the removal of historic resources or the covering of historic architectural details with cladding, awnings, or signage.
- Use historic photos to inform rehabilitation, if available.

- Use materials and colors that complement the historic character of the property.
- Consider consultation with a preservation architect to ensure that renovations are compatible. Consult with the City's historic preservation staff.

DG-68 **Preservation.** Avoid removal of historic resources.

Mitigation Measures

Mitigation Measure CUL-1:

The mitigation measure provided below implements HPE Policy 3.8 and includes multiple measures and approaches, Some approaches could reduce impacts to historic resources to a less-than-significant level, and others could reduce impacts to historic properties, but not to a less-than-significant level.

a) Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures.

- *Avoidance***.** The City shall ensure, where feasible, that all future redevelopment activities allowable under the Station Area Plan, including demolition, alteration, and new construction, would avoid historical resources (i.e., those listed on federal, state, and local registers).
- *Adaptive Reuse***.** If avoidance is not feasible, adaptive reuse and rehabilitation of historical resources shall occur in accordance with the *Secretary of Interior's Standards for the Treatment of Historic Properties*.
- *Appropriate Relocation.* If avoidance or adaptive reuse *in situ* is not feasible, pursuant to SCA 56: Compliance with Policy 3.7 of the Historic Preservation Element (Property Relocation Rather than Demolition), redevelopment projects able to relocate the affected historical property to a location consistent with its historic or architectural character could reduce the impact to less than significant (Historic Preservation Element Action 3.8.1), unless the property's location is an integral part of its significance, e.g., a contributor to a historic district.

b) Future Site-specific Surveys and Evaluations.

Although most of the Project Area has been surveyed by the City of Oakland's OCHS, evaluations and ratings may change with time and other conditions. As such, there may be numerous other previously unidentified historical resources which would be affected by future redevelopment activities, including demolition, alteration, and new construction. For any future development project that would occur on or immediately adjacent to buildings 50 years old or older that have not been surveyed within the last 10 years, the City shall require specific surveys and evaluations of such properties to determine their potential historical significance at the federal, state, and local levels. Intensive-level surveys and evaluations shall be completed by a qualified architectural historian who meets the *Secretary of the Interior's Standards* for architectural history. For all historical resources identified as a result of site-specific surveys and evaluations, the City shall ensure that future redevelopment activities, including demolition, alteration, and new construction, would avoid, adaptively reuse, and/or appropriately relocate such historical resources in accordance with measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures), above. Site-specific surveys and evaluations that are more than 5 years old shall be updated to account for changes which may have occurred over time.

c) Recordation and Public Interpretation.

If measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically significant Structures) is determined infeasible as part of any future redevelopment scenarios, the City shall evaluate the feasibility of recordation and public interpretation of such resources prior to any construction activities which would directly affect them. Should City staff decide that recordation and/or public interpretation is required, the following activities would be performed:

- *Recordation*. Recordation shall follow the standards provided in the National Park Service's Historic American Building Survey (HABS) program, which requires photo-documentation of historic structures, a written report, and measured drawings (or photo reproduction of original plans if available), as appropriate. The photographs and report would be archived at the Oakland Department of Planning, Building, and Neighborhood Preservation and/or at local repositories, such as public libraries, historical societies, and the Northwest Information Center at Sonoma State University. The recordation efforts shall occur prior to demolition, alteration, or relocation of any historic resources identified in the Project Area, including those that are relocated pursuant to measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures). Additional recordation could include (as appropriate) oral history interviews or other documentation (e.g., video) of the resource.
- *Public Interpretation*. A public interpretation program would be developed by a qualified historic consultant, as appropriate, in consultation with the Landmarks Preservation Advisory Board and City staff, based on a City-approved scope of work and submitted to the City for review and approval. The program could take the form of plaques, commemorative markers, or artistic or interpretive displays that explain the historical significance of the properties to the general public. Such displays would be incorporated into project plans as they are being developed, and would typically be located in a publicly accessible location on or near the site of the former historical resource(s). Public interpretation displays shall be installed prior to completion of any construction projects in the Project Area.

  Photographic recordation and public interpretation of historically significant properties does not typically mitigate the loss of potentially historic resources to a less than significant level [CEQA Section 15126.4(b)(2)].

d) Financial Contributions.

If measure "a" (Avoidance, Adaptive Reuse, or Appropriate Relocation of Historically Significant Structures) and measure "b" (Future Site-specific Surveys and Evaluations) are not satisfied, the project applicants of specific projects facilitated by the Proposed Amendments shall make a financial contribution to the City of Oakland, which can be used to fund other historic preservation projects within the Planning Area or in the immediate vicinity. Such programs include, without limitation, a Façade Improvement Program, or the Property Relocation Assistance Program.

This mitigation would conform to Action 3.8.1(9) of the Historic Preservation Element of the City of Oakland General Plan. Contributions to the fund(s) shall be determined by staff at the time of approval of site-specific project plans based on a formula to be determined by the Landmarks Preservation Advisory Board. However, such financial contribution, even in conjunction with measure "c" (Recordation and Public Interpretation), would not reduce the impact to a less than significant level.

Impact CUL-2

Future development under the proposed Plan would not cause a substantial adverse change in the significance of archaeological resources pursuant to CEQA Guidelines section 15064.5. ***(Less than Significant)***

The NWIC identifies six recorded archaeological resources in the Planning Area, including a Native American habitation site; historic-era residential remains located throughout a city block; historic-era remains of a former rail line; areas of shell and dark sand; and a Native American burial site. While none of these resources are located directly within any of the opportunity sites identified by the Station Area Plan, some are located in close proximity. NWIC also concludes that there is a high potential of identifying unrecorded Native American Resources, due to the area's physical setting and geological characteristics, as described in the Environmental Setting section. Therefore, there may be potential for construction activities from new development under the proposed Plan to impact archeological resources in the Planning Area.

Various State regulations provide guidance on the steps that must be taken if significant archaeological resources are uncovered during ground-disturbing activities associated with construction. Pursuant to CEQA Guidelines 15064.5 (f), if potentially significant cultural resources are discovered, work shall halt in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with the City of Oakland and other appropriate agencies and interested parties. If the archaeologist determines that the find does not meet the CEQA standards of significance, construction may proceed. On the other hand, if the archaeologist determines that further information is needed to evaluate significance, City staff shall be notified and a data recovery plan shall be prepared.

Potential impacts on archaeological resources and human remains are addressed in the Oakland General Plan and codified in the City's SCA. Implementation of the City of Oakland's SCA 52: Archaeological Resources will ensure that inadvertent discoveries of any subsurface archaeological materials, even in this area where there are known sites that may qualify as unique archaeological resources under CEQA, are dealt with according to regulatory guidance and result in a less than significant impact.

Mitigation Measures

None required.

Impact CUL-3

Future development under the proposed Plan would not disturb any human remains, including those interred outside formal cemeteries. ***(Less than Significant)***

The NWIC concludes that there is a high potential of identifying unrecorded Native American Resources, due to the area's physical setting and geological characteristics, as described in the Environmental Setting section. Therefore, there may be potential for construction activities from new development under the proposed Plan to impact human remains in the Planning Area. If human remains of Native American origin are discovered during project construction, the developer and/or City staff would be required to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Pub. Res. Code Sec. 5097) as described in the Regulatory Setting section.

Potential impacts on human remains are addressed in the Oakland General Plan and codified in the City's SCA. Implementation of the City of Oakland's SCA 53, *Human Remains,* will ensure that inadvertent discoveries of any human remains are dealt with according to regulatory guidance and result in a less than significant impact.

Mitigation Measures

None required.

Impact CUL-4

Future development under the proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant*)

Adverse impacts on paleontological resources could occur when earthwork activities such as mass excavation cut into geological formations where fossils are buried. These impacts are in the form of physical destruction of fossil remains. The paleontological sensitivity of the geologic units underlying the Planning Area is considered to be low to moderate, and it is possible that fossils would be discovered during excavation within the Planning Area. Because the significance of such fossils would be unknown, such an event represents a potentially significant impact to paleontological resources. However, implementation of SCA 54: Paleontological Resources would ensure that the potential impact to fossils discovered within the rock units would be less than significant.

Mitigation Measures

None required.

Cumulative Impact CUL-4

The proposed Plan would contribute to a cumulative impact on historic resources. (*Significant and Unavoidable, Proposed Plan Contribution Cumulative Considerable*)

Geographic Context

Cumulative analysis includes a review of the proposed Station Area Plan and its relationship with past, present, and reasonably foreseeable maximum development. Given the nature of the potential impacts analyzed for this topic, the geographic scope would generally include projects within the Planning Area, as well as those on the City of Oakland's Active Major Development Projects list that are within a five-block radius of the Planning Area. These projects are included in a table as Appendix D. Significant cumulative impacts could occur as a result of development within the Planning Area, covered under Impact CUL-1, and the impact would be cumulatively considerable when combined with impacts resulting from development in the larger vicinity of the Planning Area.

Potential Impacts within the Planning Area

As described under Impact CUL-1, the proposed Plan contains development opportunity sites that overlap with three properties that meet the City's historic resource criteria (see **Figure 3.8-2**).

One of these sites is the Kaiser Auditorium, for which there is a strong expectation for adaptive reuse without significant impact on its historic resource value. Though there is an array of existing regulations

that seek to protect historic resources, they do not absolutely ensure that the historic significance of any designated historic properties or PDHPs would not be substantially impaired. The proposed Station Area Plan also includes policies that aim to support the conservation of historic resources. However, as stated in Impact CUL-1, no feasible mitigation measures have been identified and this impact is considered significant and unavoidable (see Impact CUL-1).

The opportunity sites included in the analysis of the proposed Plan include the sites of five active development projects included in Table B-2 (Appendix B). These sites are currently vacant or contain surface parking lots or single-story commercial buildings, and none have historic resources.

Proposed Projects in the Vicinity of the Planning Area

As shown in Table B-2 (Appendix B), there are 12 additional reasonably foreseeable maximum development projects within a five-block radius of the Planning Area, some of which could potentially combine with the loss of historic resources within the Planning Area to result in a significant cumulative impact on historic resources. These include residential, office, and mixed-use projects along Broadway, in the City Center development project, in the Jack London Square area, and in the Oak to Ninth Avenue project. Of these projects, only three would affect historic resources:

- 1100 Broadway has been approved as a 20-story Class A office building built on an existing parking lot, combined with the renovation of the Key System Building façade, which is listed on the National Register.
- 1443 Alice Street is proposed as a 245-unit residential tower, integrated with the adaptive reuse of an existing garage built in 1927. The building is rated "B" (Major Importance) in the Oakland Cultural Heritage Survey (OCHS) and is a historic resource.
- The Oak to 9th Mixed-Use Development proposed for the Estuary waterfront would include demolition of 15 buildings, primarily light industrial buildings and warehouses. The 9th Avenue Terminal Building, rated "A" on the OCHS, is a historic resource and much of this building (up to 165,000 square feet of 180,000 square feet total) would be demolished. The first story of the existing office in the Bulkhead Building would be retained and rehabilitated.

Cumulative Impacts on Historic Resources in the Vicinity

As indicated by the projects summarized above, certain current approved or proposed development projects adopt an adaptive reuse and/or restoration approach, which has the potential to maintain historic resources while placing them in an altered context. This may be the case with future development in the Planning Area. If removal is proposed for future projects, the specific potential effects will be evaluated, and mitigation may be required, as proposed for the Oak to Ninth project. Overall, proposed development patterns in the Station Area will be consistent with the evolving built environments in adjacent downtown Oakland and in the Jack London Square District. Based on projected development, there would be no impacts on structures rated "A" or "B" on the OCHS. Two buildings that are listed on the State Historic Property Directory are considered part of potential opportunity sites, but these buildings are either rated "D" or were not considered eligible for rating on the OCHS. The Kaiser Auditorium, a City-designated historic Landmark, is considered an opportunity site, but there is a strong expectation that it will be adaptively reused. There are many existing regulations that may protect many or all significant historic resources; however, they do not ensure that all historic resources will be protected from adverse impacts. The Station Area Plan includes numerous policies to facilitate historic resource preservation, to support

preservation of the properties in the Planning Area that meet City of Oakland significance criteria. Nevertheless, the proposed Station Area Plan would have a significant and unavoidable impact, as discussed under Impact CUL-1. In combination with all past, present, and reasonably foreseeable maximum development, the potential cumulative impacts on historic resources in the vicinity would be significant and the proposed Plan's contribution to the impact would be cumulatively considerable.

Proposed Plan Policies that Reduce the Impact

See policies listed under Impact CUL-1.

Mitigation Measures

Mitigation Measure CUL-1.

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3.9 Aesthetics

This section provides an overview of the existing conditions regarding aesthetics, shadow, light and glare in the Planning Area and surrounding environment, the regulatory framework, an analysis of visual resource impacts that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

The Planning Area is characterized mostly by a highly urbanized mix of commercial, residential, and institutional land uses cross-cut by an elevated freeway and multiple lane roadways. The developed area contains three small parks—Lincoln Square, Madison Square, and Chinese Garden (Harrison Square) Parks—as well as many historic structures and areas of historic and cultural significance. In addition, the Planning Area has two distinctive natural features in Lake Merritt and the Lake Merritt Channel, and their surrounding parkland.

Views

The Planning Area includes several public scenic viewpoints. The segments of 12th Street and 14th Street from Fallon Street to 1st Avenue offer views of the downtown skyline and Oakland hills across Lake Merritt; the Lake Merritt Park Master Plan provides design and development recommendations for this area. The 7th Street Bridge provides a view of the Channel, parkland, and significant buildings. The photos on the following page show the existing visual resources of the Planning Area.

There are no designated scenic highways or roadways in the Planning Area. The San Francisco Bay Plan of the San Francisco Bay Conservation and Development Commission does not have any designated vista points or other scenic designations in or around the Planning Area.


Top row left: Lake Merritt Park as seen from Lakeside Drive, before reconstruction. Right: Lake Merritt across Channel seen from East 10th St.


Second row left: Kaiser Auditorium. Right: Lake Merritt Channel and Kaiser Auditorium from East 7th St.


Third row left: Alameda County Courthouse. Right: Hotel Oakland.


Bottom left: Chinatown Commercial District. Right: 7th Street/Harrison Square Residential District.

Light and Glare

The Planning Area is located in a built-out urban environment that has existing sources of light and glare associated with land uses typical for an urban setting. Light and glare are typically emitted upward and outward by high-rise buildings, and may be emitted in a broader, lower level in large parking lots and from institutional uses, such as Laney College. Light and glare are also associated with street lights and luminaries on major streets and I-880.

Shadows

Shadow conditions are typical of built-out urban environments and most prevalent near the high-rise buildings west of Webster Street which shade nearby public and private properties, especially during the morning and afternoon hours during late fall and early winter, when the sun is lowest on the horizon. Taller buildings in the area along 12th, 14th, and Oak Streets, and at the corner of 3rd Avenue and East 12th Street in the Eastlake area, also cast longer shadows during this time.

REGULATORY SETTING

Adopted policies in the City's General Plan, the City's Standard Conditions of Approval, and Mitigation Measures adopted as part of the Proposed Amendments to the Central District Urban Renewal Plan Draft EIR provide an important framework for the proposed Station Area Plan. In addition, policies included in the Estuary Policy Plan, adopted in 1999, and the Lake Merritt Park Master Plan (2002), feature recommendations for the preservation and enhancement of scenic assets along the Estuary and Lake.

City of Oakland General Plan

Land Use and Transportation Element

The Land Use and Transportation Element of the General Plan affects visual resources primarily by shaping broad-based land use patterns in the City. Applicable policies and objectives are:

Policy T6.2: **Improving Streetscapes.** The city should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian-oriented and include lighting, directional signs, trees, benches, and other support facilities.

Policy D2.1: **Enhancing the Downtown.** Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history, and pedestrian-orientation of the downtown, and contribute to an attractive skyline.

Policy W2.6: **Providing Maritime and Aviation Viewing Access.** Safe access to areas for viewing maritime and aviation activities without interfering with seaport and airport activities should be encouraged.

Policy W2.10: **Making Public Improvements as Part of Projects.** Physical improvements to improve the aesthetic qualities of the waterfront, and increase visitor comfort, safety, and enjoyment should be incorporated in the development of projects in the waterfront areas. These amenities may include landscaping, lighting, public art, comfort stations, street furniture, picnic facilities, bicycle racks, signage, etc. These facilities should be accessible to all persons and designed to accommodate elderly and physically disabled persons.

Policy W3.2: **Enhancing the Quality of the Natural and Built Environment.** The function, design and appearance, and supplementary characteristics of all uses, activities, and facilities should enhance, and should not detract from or damage the quality of, the overall natural and built environment along the waterfront.

Policy W3.4: **Preserving Views and Vistas.** Buildings and facilities should respect scenic viewsheds and enhance opportunities for visual access of the waterfront and its activities.

Open Space, Conservation, and Recreation Element

The Open Space, Conservation, and Recreation Element promotes the preservation and good design of open space, and the protection of natural resources to improve aesthetic quality in Oakland. The following policies are relevant to visual resources concerns associated with the proposed Plan:

Policy OS-2.1: **Protection of Park Open Space.** Manage Oakland's urban parks to protect and enhance their open space character while accommodating a wide range of outdoor activities.

Policy OS-2.2: **Schoolyard Enhancement.** Enhance the availability and usefulness of Oakland's schoolyards and athletic fields as open space resources by (a) working with the Oakland Unified School District to make schoolyards and school athletic fields available to the public during non-school hours; (b) softening the harsh appearance of schoolyards by varying paving materials, landscaping, and restoring elements of the natural landscape, and (c) encouraging private schools, including church schools, to improve the visual appearance of asphalt yard areas.

Policy OS-2.5: **Urban Park Acquisition Criteria.** Increase the amount of urban parkland in the seven planning areas, placing a priority on land with the following characteristics (not in priority order): . . . (c) Land with visual or historic significance. . . (g) Land that is highly visible from major streets, or that is adjacent to existing public buildings, particularly police and fire stations.

Policy OS-6.4: **Lake Management.** Manage Oakland's lakes to take advantage of their recreational and aesthetic potential while conserving their ecological functions and resource value. Discourage new recreational uses which impair the ability of lakes to support fish and wildlife. Support improvements which enhance water circulation, water quality, and habitat value, provided they are cost effective and are compatible with established recreational activities.

Policy OS-7.3: Waterfront Preservation. Promote a greater appreciation of the Oakland waterfront by preserving and enhancing waterfront views, promoting its educational value, and exploring new and creative ways to provide public access to the shoreline without interfering with transportation and shipping operations or endangering public safety.

Policy OS-9.2: Use of Natural Features to Define Communities. Use open space and natural features to define city and neighborhood edges and give communities within Oakland a stronger sense of identity. Maintain and enhance city edges, including the greenbelt on the eastern edge of the city, the shoreline, and San Leandro Creek. Use creeks, parks, and topographical features to help define neighborhood edges and create neighborhood focal points.

Policy OS-9.3: Gateway Improvements. Enhance neighborhood and city identity by maintaining or creating gateways. Maintain view corridors and enhance the sense of arrival at the major entrances to the city, including freeways, BART lines, and the airport entry. Use public art, landscaping, and signage to create stronger City and neighborhood gateways.

Policy OS-10.1: View Protection. Protect the character of existing scenic views in Oakland, paying particular attention to: (a) views of the Oakland hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard, Grizzly Peak Road, and other hillside locations.

Policy OS-10.2: Minimizing Adverse Visual Impacts. Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.

Policy OS-10.3: Underutilized Visual Resources. Enhance Oakland's underutilized visual resources, including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares.

Policy OS-11.1: Access to Downtown Open Space. Provide better access to attractive, sunlit open spaces for persons working or living in downtown Oakland. The development of rooftop gardens is encouraged, especially on parking garages.

City of Oakland Municipal Code

Chapter 8.24: Property Blight

This chapter requires a level of maintenance of residential, commercial, and industrial property that will protect and preserve the livability, appearance, and social and economic stability of the city.

Chapter 9.16.060: Lighting

No person shall make any electric service connection to, or supply any electrical energy to, any ornamental street lighting installation until the Electrical Department has inspected and approved such installation, and determined its conformance to the applicable rules and regulations of the city.

Chapter 15.52: Views

This chapter establishes standards for the resolution of view obstruction claims to provide a reasonable balance between trees and view-related values for both private views and protected public view corridors.

City of Oakland Planning Code

Title 17, Section 17.124: Landscaping and Screening Standards

The purpose of the provisions outlined in this chapter is to prescribe standards for development and maintenance of planting, fences, and walls; for the conservation and protection of property; and through improvements of the appearance of individual properties, neighborhoods, and the city.

Title 17, Section 17.136: Design Review Procedure

The purpose of the provisions outlined in this chapter is to prescribe the procedure for the review of proposals located in areas or on site, or involving uses, which require special design treatment and consideration of relationships to the physical surroundings. This procedure will be applied to all proposals for which design review is required by the zoning regulations. An application for design review must be made by the owner of the affected property on a form prescribed by the City Planning Department and then filed with this department. The application must be accompanied by certain information, including, but not limited to, site and building plans, elevations, and relationships to adjacent properties.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval) would apply to development under the proposed Plan.

SCA-12. Required Landscape Plan for New Construction and Certain Additions to Residential Facilities[1]

Prior to issuance of a building permit

Submittal and approval of a landscape plan for the entire site is required for the establishment of a new residential unit (excluding secondary units of five hundred (500) square feet or less), and for additions to Residential Facilities of over five hundred (500) square feet. The landscape plan and the plant materials installed pursuant to the approved plan shall conform to all provisions of Chapter 17.124 of the Oakland Planning Code, including the following:

a. Landscape plan shall include a detailed planting schedule showing the proposed location, sizes, quantities, and specific common botanical names of plant species.

b. Landscape plans for projects involving grading, rear walls on downslope lots requiring conformity with the screening requirements in Section 17.124.040, or vegetation management prescriptions in the S-11 zone, shall show proposed landscape treatments for all graded areas, rear wall treatments, and vegetation management prescriptions.

c. Landscape plan shall incorporate pest-resistant and drought-tolerant landscaping practices. Within the portions of Oakland northeast of the line formed by State Highway 13 and continued southerly by Interstate 580, south of its intersection with State Highway 13, all plant materials on

[1] General Landscape Conditions of Approval for all new residential construction or residential additions of over 500 sq. ft.

submitted landscape plans shall be fire resistant. The City Planning and Zoning Division shall maintain lists of plant materials and landscaping practices considered pest-resistant, fire-resistant, and drought-tolerant.

d. All landscape plans shall show proposed methods of irrigation. The methods shall ensure adequate irrigation of all plant materials for at least one growing season.

SCA-13. Landscape Requirements for Street Frontages (Residential Construction)

Prior to issuance of a final inspection of the building permit:

a. All areas between a primary Residential Facility and abutting street lines shall be fully landscaped, plus any unpaved areas of abutting rights-of-way of improved streets or alleys, provided, however, on streets without sidewalks, an unplanted strip of land five (5) feet in width shall be provided within the right-of-way along the edge of the pavement or face of curb, whichever is applicable. Existing plant materials may be incorporated into the proposed landscaping if approved by the Director of City Planning.

b. In addition to the general landscaping requirements set forth in Chapter 17.124, a minimum of one (1) fifteen-gallon tree, or substantially equivalent landscaping consistent with city policy and as approved by the Director of City Planning, shall be provided for every twenty-five (25) feet of street frontage. On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet, the trees to be provided shall include street trees to the satisfaction of the Director of Parks and Recreation.

SCA-15. Landscape Maintenance (Residential Construction)

Ongoing

All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. All required fences, walls and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.

SCA-17. Landscape Requirements for Street Frontages[2]

Prior to issuance of a final inspection of the building permit

On streets with sidewalks where the distance from the face of the curb to the outer edge of the sidewalk is at least six and one-half (6 ½) feet and does not interfere with access requirements, a minimum of one (1) twenty-four (24) inch box tree shall be provided for every twenty-five (25) feet of street frontage, unless a smaller size is recommended by the City arborist. The trees to be provided shall include species acceptable to the Tree Services Division.

SCA-18. Landscape Maintenance (Commercial and Manufacturing)

Ongoing

All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping

[2] General Landscape Conditions of Approval for all new commercial and manufacturing construction.

requirements. All required irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.

SCA-19. Underground Utilities[3]

Prior to issuance of a building permit

The project applicant shall submit plans for review and approval by the Building Services Division and the Public Works Agency, and other relevant agencies as appropriate, that show all new electric and telephone facilities; fire alarm conduits; street light wiring; and other wiring, conduits, and similar facilities placed underground. The new facilities shall be placed underground along the project applicant's street frontage and from the project applicant's structures to the point of service. The plans shall show all electric, telephone, water service, fire water service, cable, and fire alarm facilities installed in accordance with standard specifications of the serving utilities.

SCA-20. Improvements in the Public Right-of-Way (General)

Approved prior to the issuance of a P-job or building permit

a. The project applicant shall submit Public Improvement Plans to Building Services Division for adjacent public rights-of-way (ROW) showing all proposed improvements and compliance with the conditions and/or mitigations and City requirements including but not limited to curbs, gutters, sewer laterals, storm drains, street trees, paving details, locations of transformers and other above ground utility structures, the design specifications and locations of facilities required by the East Bay Municipal Utility District (EBMUD), street lighting, on-street parking and accessibility improvements compliant with applicable standards and any other improvements or requirements for the project as provided for in this Approval. Encroachment permits shall be obtained as necessary for any applicable improvements located within the public ROW.

b. Review and confirmation of the street trees by the City's Tree Services Division is required as part of this condition and/or mitigations.

c. The Planning and Zoning Division and the Public Works Agency will review and approve designs and specifications for the improvements. Improvements shall be completed prior to the issuance of the final building permit.

d. The Fire Services Division will review and approve fire crew and apparatus access, water supply availability and distribution to current codes and standards.

SCA-21. Improvements in the Public Right-of Way (Specific)

Approved prior to the issuance of a grading or building permit

Final building and public improvement plans submitted to the Building Services Division shall include the following components:

a. Install additional standard City of Oakland streetlights.

b. Remove and replace any existing driveway that will not be used for access to the property with new concrete sidewalk, curb and gutter.

[3] These Additional General Conditions of Approval apply to major permits (initial decision is by the Planning Commission and can be appealed to City Council).

c. Reconstruct drainage facility to current City standard.

d. Provide separation between sanitary sewer and water lines to comply with current City of Oakland and Alameda Health Department standards.

e. Construct wheelchair ramps that comply with Americans with Disability Act requirements and current City Standards.

f. Remove and replace deficient concrete sidewalk, curb and gutter within property frontage.

g. Provide adequate fire department access and water supply, including, but not limited to currently adopted fire codes and standards.

h. Insert as applicable.

SCA-40. Lighting Plan[4]

Prior to the issuance of an electrical or building permit

The proposed lighting fixtures shall be adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. Plans shall be submitted to the Planning and Zoning Division and the Electrical Services Division of the Public Works Agency for review and approval. All lighting shall be architecturally integrated into the site.

Lake Merritt Master Plan (2002)

The Lake Merritt Master Plan is intended to guide future improvements to the park land around Lake Merritt, in the context of a revitalized downtown area with thousands of new residents and a park in need of restoration. The Plan aims to enhance the Park's assets and make it an essential part of the city's fabric. It addresses the Park's ecology, its circulation patterns, its recreational uses, and its history and cultural context and provides direction in each of these areas.

The Plan contains Design Guidelines for the 12th Street/Cultural District area that is within the Lake Merritt Station Area Plan. The overarching concept for this area is to restore the urban fabric; enhance connections between Channel Park and the Estuary; and elevate the identity of a "cultural district" in the area. To achieve this, the Plan calls for redesigning 12th Street as a boulevard, creating a new shoreline park at the south end of the lake, and improving connections between the Estuary and the Lake via Lake Merritt Channel. All of these recommendations have resulted in current projects under Measure DD.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element would largely occur as infill, in an urbanized and built-out City. In the EIR, the City concluded that adoption and implementation of the Housing Element—including the eventual construction of 13,501 housing units citywide—would result in less than- significant impacts related to aesthetics, shadow, and wind assuming adherence to the existing General Plan Policies, City's SCAs, and/or previously imposed LUTE EIR mitigation measures.

[4] These Development Standards apply to ALL construction projects that will have new exterior lighting.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The project would have a significant impact on the environment if it would:

1. Have a substantial adverse effect on a scenic vista [**NOTE**: Only impacts on scenic views enjoyed by members of the public generally (but not private views) are potentially significant.];
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, located within a state or locally designated scenic highway;
3. Substantially degrade the existing visual character or quality of the area and its surroundings;
4. Create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area;
5. Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or
6. Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.

METHODOLOGY AND ASSUMPTIONS

To evaluate potential impacts on visual resources in the Planning Area, this analysis considered potential degradation of existing scenic public views, scenic resources and existing visual character of the Planning Area. As aesthetics and visual resources can be subjective by nature, the aesthetic and visual characteristics of the Planning Area are qualitatively evaluated. The implications of proposed Plan height limit areas and design guidelines were evaluated, and in particular the expected form of development on opportunity sites at reasonably foreseeable maximum development, described in detail in Chapter 2. The form of projected buildings was compared with existing conditions in various parts of the Planning Area. The analysis also evaluated potential new sources of light, glare and shadowing, as well as potential conflicts with existing policies and regulations.

SUMMARY OF IMPACTS

Impact AES-1 – Scenic Vistas

The Planning Area contains notable scenic vistas along Lake Merritt and the Lake Merritt Channel and toward historic structures such as Kaiser Auditorium and other structures along the edge of Lake Merritt. The zoning and height limit amendments that would be implemented following the Station Area Plan would allow increased building height and mass compared to existing conditions, though would result in lower maximum allowed building and/or base heights in much of the Planning Area. No short-term views would be blocked, as the existing circulation and open space network would be preserved and enhanced. The General Plan and Estuary Policy Plan include policies applicable to all new development that would protect views. Proposed massing requirements and design guidelines would also help to preserve views, but are not required to reduce this potential impact to a less than significant level.

Impact AES-2 – Visual Character and Quality

The Planning Area itself has distinctive visual character and qualities. Of particular importance are the Chinatown Commercial District and the 7th Street/Harrison Square Residential District as well as other areas considered in more detail for their historical value in Section 3.8. The Station Area Plan will facilitate substantial new development that will alter the existing character of the area by adding more buildings, many of them likely to be taller than typical existing buildings in the area. However, the Plan places a strong emphasis on improving the visual character of the area by creating design guidelines that ensure that new buildings are of a high quality and complement their surroundings. While the overall effect of proposed design guidelines will support the visual character of the Station Area, no one specific guideline or set of guidelines is necessary to reduce the potential impact to a less than significant level. With adherence to existing General Plan policies and existing regulations, this potential impact is less than significant.

Impact AES-3 – Light and Glare

Development following the Station Area Plan has the potential to add light and glare, but this impact is less than significant given the existing thoroughly-urbanized character of the Planning Area and the effects of existing regulations governing light. Proposed Plan design guidelines would further improve the approach taken to lighting by new development, but are not needed to reduce the potential impact to less than significant.

Impact AES-4 – Shadows on Public or Quasi-Public Spaces

Tall buildings that may be developed following the Station Area Plan have the potential to cast shadows and impact public open spaces. However, the Station Area Plan proposes a new set of regulatory height areas that would reduce maximum building heights and establish lower base heights on key blocks adjacent to neighborhood parks. Setbacks would be established along Lake Merritt Park and Channel Park. With implementation of existing design review procedures, the potential for new development to cast shadow that substantially impairs the beneficial use of public open spaces will be less than significant.

Impact AES-5 – Conflicts with Existing Policies or Regulations

The proposed Plan will not require an exception to existing General Plan policies or regulations that ensure adequate light for all land uses that need it, resulting in a less than significant impact.

Cumulative Impact AES-6 – Aesthetics

The geographic context used for the cumulative assessment of scenic impacts includes the Planning Area and surrounding districts, generally including Jack London Square to the south, much of downtown Oakland to the north and west, and the Eastlake neighborhood to the east. Active development projects in the Planning Area and vicinity are in Appendix B. There are five proposed future development projects within the Planning Area that would include new towers between 19 and 27 stories. Numerous large-scale development projects have been completed or are planned as part of the Jack London Square Mixed use Project and in the surrounding neighborhood, as well as Downtown. To the southeast, the proposed Oak to Ninth Avenue Project would add up to 3,100 residential units and 200,000 square feet of commercial space.

Overall, significant cumulative aesthetic impacts on the Planning Area's scenic resources and views are not expected to result from recent, current, or reasonably foreseeable maximum development in and around the Planning Area. The Station Area Plan's contribution to this potential impact would not be cumulatively considerable.

Other Potential Issues

This EIR does not include an analysis of shadows as they relate to impacts on solar heat collection or historic resources, and does not analyze potential wind impacts. While these issues are included in the City's Thresholds of Significance Guidelines (2013), satisfactory analysis would require more detailed information about future buildings. Given the Plan's programmatic characteristics, detailed information about individual projects is not available and it would be speculative to attempt to analyze these project-specific impacts within this EIR. This analysis will need to be performed at the project-specific level.

The City of Oakland currently has two designated scenic routes: MacArthur Freeway/State route 580 and Skyline Boulevard/Grizzly Peak. Neither of these routes passes through the Planning Area. Thus, there will be no impact on scenic resources as defined by the City's CEQA thresholds, and this potential impact is not further considered.

IMPACTS

Impact AES-1

New development under the proposed Plan would not have a substantial adverse effect on a public scenic vista. ***(Less than Significant)***

The Planning Area features scenic views that should be considered. In particular, views over Lake Merritt toward the downtown skyline and the Oakland Hills are important visual resources for the City. Views from the 7th Street Bridge over Lake Merritt Channel and the parkland along it may also be considered scenic. Views to the Planning Area's historic landmark buildings and sites—the Oakland Museum of California, Kaiser Auditorium, the Main Post Office, the Hotel Oakland, and Lincoln Square Park—are also important.

Flat topography limits the availability of long-range views from within the Planning Area. The Plan would not support any development that would encroach on existing public streets and thus potentially block short-range view corridors. The proposed Station Area Plan would facilitate new development including tall buildings in areas currently typified by low- and mid-rise development. Plan implementation would reduce allowable building height in much of the Planning Area, meaning that future development would be less likely to obstruct long-range views under the Plan. On three blocks between 13th and 14th Streets from Harrison to Madison Street, maximum height would be raised from 85 to 275 feet (Height Area 3). On these blocks, a maximum base height of 85 feet would be retained, requiring buildings to step back and help frame views toward Lake Merritt to the east and the Tribune Tower to the west. Maximum height would also be raised in the Eastlake Gateway area (Height Area 7) from 75 and 90 feet to 175 feet. However, a new 45-foot maximum base height would require new buildings to step back, helping to maintain views. It is assumed in this EIR that a developer incentive program would be implemented within the envelope of the maximum development potential analyzed in this EIR.

Existing policies in the General Plan's OSCAR Element call for view protection, particularly including views of downtown and Lake Merritt among others (Policy OS-10.1) and minimizing adverse visual impacts through site planning (Policy OS-10.2). Several SCAs have been established that help bring about attractive streetscapes, including requirements for street frontage landscaping (SCA 13 and SCA 17); landscape maintenance (SCA 15 and 18); and for placing all new utilities underground (SCA 19) where they would not obstruct views.

Impacts on aesthetics associated with specific sites would be evaluated on a case-by-case basis as development applications are received. Compliance with these General Plan policies and SCAs, as well as Chapter 15.52 (Views) of the Oakland Municipal Code would ensure that access to protected views is preserved, reducing this potential impact to a less than significant level.

Mitigation Measures

None required.

Impact AES-2

New development facilitated by the proposed Plan would not substantially degrade the existing visual character or quality of the Planning Area and its surroundings. ***(Less than Significant)***

The Planning Area is one of the oldest parts of Oakland and includes a dense variety of buildings, varying from woodframe houses dating to the late 19th Century to low-scale commercial buildings to large-scale institutional redevelopment projects from the 1950s and 1960s, as well as more recent development. Most of the Planning Area is built on a traditional street grid, while the area around Lake Merritt Channel is composed of super-blocks with institutional uses and open spaces. The Planning Area includes sections that have special historic and cultural significance, in particular the Chinatown Commercial District centered on 8th and Webster Streets, and the 7th Street/Harrison Square Residential District, primarily along 7th Street between Harrison and Fallon Streets.

The Station Area Plan is anticipated to facilitate substantial new development over the next 20 years, and may be expected to result in changes to the existing character of the area. The area's evolving character will be shaped by a higher proportion of new buildings, a greater number of tall buildings, and new or redesigned public spaces. The Station Area Plan aims to ensure that new development enriches the visual character of the Planning Area by following Station Area Plan land use designations, building height limits, and design guidelines. These will be realized through Planning Code amendments and Design Guidelines for the Lake Merritt Station Area, both of which are proceeding concurrently with the Station Area Plan. New development and major alterations will be required to demonstrate conformance with the intent of the Design Guidelines.

The Station Area Plan proposes height limits intended to ensure that new development is compatible with the scale of existing buildings, while facilitating key development opportunities. The proposed height limit areas make use of a two-pronged system, with both maximum base heights and tower heights, to produce a built environment that is comfortable and attractive at street level. **Figure 2.3-2** shows Draft Station Area Plan Height Areas, while **Figure 2.4-5** shows how the concurrent proposal to update height limits. Key aspects include the following:

- Height Area 1 covers the 7th Street/Harrison Square Residential district, a historic Area of Primary Importance. Here, the Station Area Plan proposes an overall 45-foot height limit, reinforcing the character of the historic district and lessening development pressure there.
- Height Area 4 would establish a 275-foot overall building height and a 45-foot maximum base height across most of the Chinatown Commercial Center. New buildings under the proposed Plan will be allowed to have four-story bases, in scale with the existing context, and will be limited in height so they cannot approach the heights allowable in the downtown core.
- Three blocks on the south side of 14th Street in Height Area 7 would have a base height limit of 85 feet, with towers allowed up to 275 feet, maintaining the scale of buildings near the street but allowing more development above.

In addition, the Station Area Plan proposes an array of design guidelines that aim to produce a built environment that will maintain and enhance the visual quality of the Planning Area. These guidelines detail aspects of site planning and building orientation; massing and scale; building façade articulation; treatment of historic resources; building materials, color, and lighting; signage; landscaping; and parking. All of these features work together to shape an area's visual character. While the overall effect of proposed design guidelines will support the visual character of the Station Area, no one specific guideline or set of guidelines is necessary to reduce the potential impact to a less than significant level.

Existing Policies and Regulations

The existing General Plan sets a course for preserving and enhancing visual character. As described under Impact AES-1, Policy T6.2 calls for the City to make major efforts to improve the visual quality of streetscapes. Meanwhile Policy D2.1 calls for Downtown development to respect the character, history, and pedestrian-orientation of the downtown, and contribute to an attractive skyline. New development will be required to follow Conditions of Approval (SCA) outlined above, which provide specific standards for landscaping (SCA 13 and 17), landscape maintenance (SCA 15 and 18), underground utilities (SCA 19), and public right-of-way improvements (SCA 20 and 21). Each of these features of the built environment helps to shape an area's visual quality.

All substantial new development projects in the Planning Area will require design review as part of the permitting process, as laid out in Chapter 17.136 of the Oakland Planning Code. The City's design review criteria aim to ensure that new and remodeled buildings are "well related to the surrounding area in their setting, scale, bulk, height, materials and textures," among other criteria. Additions or alterations to Potential Designated Historic Properties (PDHPs) must be designed to be "compatible with the character of the neighborhood." Future development will be analyzed at that time for their specific potential impacts on the visual character of the surrounding area.

Compliance with General Plan policies, the Oakland Municipal Code, and SCAs would ensure that the impact of development facilitated by the proposed Plan on visual character and visual quality would be less than significant.

Mitigation Measures

None required.

Impact AES-3

New development facilitated by the proposed Plan would not create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area. ***(Less than Significant)***

The Planning Area has existing sources of light and glare typical of an urban setting. Existing sources of light and glare include a small number of high-rise buildings, street lights and luminaries, surface parking lots, street-level retail uses, and traffic. I-880 traverses the southern portion of the Planning Area and is a major source of light. Future development under the proposed Station Area Plan could create new sources of light or glare, but these new sources would be consistent with the existing light and glare conditions in the area. Individual developments would not be expected to substantially change or affect day or nighttime views as a result of increased light or glare.

Compliance with Oakland Municipal Code Chapter 9.16.060 would prevent the installation of new ornamental street lighting without proper review of the potential glare and spillover light that would affect adjacent properties. Future development would be subject to standard project and design review, and would be required to implement SCA 40: Lighting Plan, which would minimize potential impacts resulting from lighting. The Station Area Plan itself includes design guidelines that would help to minimize the negative impacts of new sources of light and glare. Existing regulations would reduce this potential impact to less than significant levels.

New development and major alterations will be required to demonstrate conformance with the intent of the Design Guidelines. Certain guidelines are intended to minimize potential light and glare created by future development in the Planning Area. However, given the existing urbanized character of the area and implementation of existing Municipal Code requirements and SCA 40, the proposed guidelines are not required to reduce the potential impact to a less than significant level.

Impact AES-4

New development facilitated by the proposed Plan would not cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space. ***(Less than Significant)***

Shadow conditions in the Planning Area are typical of developed urban environments. Most of the Planning Area is composed of low-rise, two- to five-story buildings that cast limited shadows. Shadows are more pronounced near the Area's high-rise (10- to 20-story) buildings, which are generally west of Webster Street and in the area around 12th, 14th, and Oak Streets.

Development following the proposed Station Area Plan is projected to include mid- and high-rise buildings that may cast shadow on public or publicly-accessible open spaces. The Plan's proposed height areas set maximum base and overall building heights to ensure that new development is compatible with its surroundings, as shown in **Figure 2.3-10**.

Building heights around the Planning Area's public open spaces merit particular consideration. Height limits on the west side of Lincoln Square Park would be set at a 45-foot base with a 275-foot tower height under the proposed Plan. Height limits on the block south of Madison Square Park would be set at 45 feet total under the proposed Plan. Sites directly north of Chinese Garden (Harrison Square) Park that are

within the 7th Street/Harrison Square historic district, as well as on the east side of the park, would have height limits set at 45 feet.

Along Lake Merritt, the Fire Alarm Building site would also be limited to a maximum height of 45 feet. The proposed Station Area Plan establishes maximum base and tower heights for the public uses along Lake Merritt Channel, and requires that any new building be set back from the Channel's edge. These measures will help ensure that potential shadows on regional park land along the Lake and Channel are minimized.

Through the City's review of individual development proposals and the design review process, potential project-level effects related to shadow would be determined according to the City's significance thresholds, which specifically consider potential adverse effects of shadow on public or quasi-public parks and open spaces, as well as on historic resources and solar collectors. If a project has potentially significant shadow impacts, the City will require, through the standard review processes, that the project incorporates design changes to avoid or reduce these potential effects to less than significant at a project level. With the implementation of these procedures, development facilitated by the proposed Station Area Plan would result in a less than significant shadow impact. The Station Area Plan is accompanied by additional design guidelines to ensure that negative shadow effects are minimized, but these are not needed to reduce this impact to less than significant.

Mitigation Measures

None required.

Impact AES-5

New development facilitated by the proposed Plan would not require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses. ***(Less than Significant)***

The need to ensure adequate light at street level and within dwelling units has historically been one of the key purposes of zoning and other regulations governing building form. Each zoning district in Oakland's Planning Code features development standards meant to ensure that uses receive adequate light, among other things.

The Station Area Plan calls for changes to maximum building base and tower heights, as discussed above in Impact AES-2. In general, the Plan would distinguish between a building's base and its tower element. For much of the Planning Area, including Upper Chinatown and the Chinatown Commercial Core, a maximum base height would be established to support the existing built context. The use of a base/tower approach, and the tailoring of maximum base heights to their context, may be expected to result in adequate light reaching street level, as the tallest elements of buildings will be stepped back. Changes will enhance the existing Code's effect on providing adequate light. Currently there are no SCAs that address this issue. The Station Area Plan may be expected to have no adverse impact on Code standards or General Plan policies regarding access to light.

Amendments to the General Plan and Planning Code are being prepared concurrently with the Station Area Plan. With these amendments, the Station Area Plan will be fully consistent with the policies and regulations in the General Plan and Planning Code. No changes are proposed for the Uniform Building Code. This impact would be less than significant.

Mitigation Measures

None required.

Cumulative Impact AES-6

New development under the proposed Plan, in combination with other past, present, and reasonably foreseeable maximum development within and around the Planning Area, would not adversely affect scenic public vistas or scenic resources. ***(Less than Significant)***

As described under Impact AES-1, development facilitated by the Station Area Plan is not expected to block or otherwise adversely affect scenic views or scenic resources in or near the Planning Area. Of particular relevance are views across Lake Merritt and Lake Merritt Channel and views toward historic structures. Although new buildings are likely to be added to the skyline in specific views, views toward key visual resources would not be obstructed. Proposed Plan policies would, in fact, support improvement of the visual quality of these resources.

Cumulative Context

The geographic context used for the cumulative assessment of visual quality includes the Planning Area and surrounding districts, generally including Jack London Square to the south, much of downtown Oakland to the north and west, and the Eastlake neighborhood to the east. Active development projects in the Planning Area and vicinity are in Appendix B.

Within the Planning Area, there are five proposed development projects that are approved but not yet built, and one for which an application had been filed as of July 2012. (Replacement of the Embarcadero Bridge represents another approved project.) The proposed buildings include mid- and high-rise residential and mixed-use buildings including the 19-story on 1331 Harrison Street, 24-story on 188 11th Street, and 20- and 27-story on 325 7th Street. These projects will add buildings to certain views, including long-range views. They will alter the sky plane and add new identifiable elements to the sky plane.

Environmental review of 325 7th Street, the largest of these proposed projects, found that as a result of required design review by both staff and the Planning Commission, the proposed project would not degrade the visual quality of the site or the vicinity and would be consistent with the high density development within Oakland's downtown area. The cumulatively altered sky plane resulting from that and other active development projects would be visible from long-range viewpoints including downtown Oakland and San Francisco, views of San Francisco Bay and the Estuary, and other settings, but the cumulative impact would also not be significant given design review and adherence to existing development standards.

These buildings are typical of the type and form of buildings that may be anticipated to develop more fully under the Station Area Plan. Recently completed projects have ranged from five to ten stories, keeping within the existing scale.

Development in the Jack London Square neighborhood has resulted in substantial changes to the waterfront neighborhood directly across I-880 from the Planning Area, with numerous large-scale development projects completed. Most of this development has been in the range of five to eight stories, in primarily new but in some cases rehabilitated and adaptively reused buildings; one recent development, The Ellington, rises to 16 stories. The completion of the Jack London Square Mixed Use Project between Clay, Jackson, and 2nd Streets and the Embarcadero will include a total of up to 1.2 million square feet of mixed-use office, hotel, retail and/or restaurant space, hotel, plus associated parking. Development is anticipated to continue to the year 2020. Building heights in the Jack London Square district range from 24 feet to 175 feet, with the average height of just under 100 feet. While development in the neighborhood around Jack London Square is thoroughly transforming the character of that area, the scale and location of the new buildings do not have a significant impact on the visual resources of the Lake Merritt Station Area Planning Area due to the intervening presence of I-880, the relatively low height of most of the buildings, and their location at some distance from the key scenic vistas in the Planning Area. The proposed high-rise hotel (up to 175 feet tall) would be visible in the distance to the south of the Planning Area.

In Downtown Oakland, recent development has included a new 23-story office building in the City Center development, a 19-story residential tower at Lake Merritt, and many smaller-scale, primarily residential projects. Downtown Oakland is also expected to see substantial new development over the coming years. Currently there are nine proposed projects in the pipeline, particularly along Broadway and in the City Center project area. Proposed projects include a 20-story office tower paired with the rehabilitation of an historic office building at 1100 Broadway; a 36-story mixed-use tower at 1640 Broadway that would be Oakland's tallest; and two 600,000-square foot office buildings between 11th and 12th Streets west of Broadway. Directly north of the Planning Area, a 37-story residential development has been proposed atop a historic garage at 1443 Alice Street. These projects and others that follow them will reinforce downtown Oakland with a growing skyline, and should especially reinforce the Broadway spine. While these buildings would be clearly visible at mid- and long-range views, the cumulative changes would not substantially degrade existing scenic resources or adversely affect scenic views or vistas.

To the southeast, the proposed Oak to Ninth Avenue Project would add up to 3,100 residential units and 200,000 square feet of commercial space along with structured parking and approximately 30 acres of public open space along the Estuary between Fallon Street and 10th Avenue. In general, the project's residential buildings would be six to eight stories, with residential towers of 18 to 24 stories (180 to 240 feet) proposed on five parcels. The project buildings would be taller than most existing structures on the site and in the immediate vicinity, but would be similar in scale to existing and approved buildings at nearby Jack London Square. The proposed site plan and building massing are intended to provide architectural variation, an attractive pedestrian- and community-scaled environment, and a distinctive architectural profile when viewed from distant viewpoints. The Oak to Ninth Avenue Project was determined to have a less than significant visual impact, both individually and in the cumulative context. It does not lie within any key scenic vistas in the Planning Area, but would be visible from the Planning Area.

Currently, only two new developments are proposed in the Eastlake neighborhood east of the Planning Area. These are a 92-unit affordable senior housing development proposed at 116 East 15th Street and a 55-unit affordable housing development at 720 East 11th Street. This development, combined with the relatively lower height limits in this area, will not result in a significant impact on key views in the Planning Area nor would they contribute to a significant cumulative impact in the Planning Area.

Thus, there would be no significant cumulative aesthetic impacts, nor would the effect of the project in combination with other foreseeable projects be cumulatively considerable.

Although these cumulative projects would be visible from many vantage points, the proposed Station Area Plan's contribution to this overall cumulative increase in building height and massing would not constitute a considerable negative cumulative aesthetic effect, and the cumulative visual impact would be less than significant.

Other projects' adherence to applicable standards and regulations similar to those applied to the proposed Station Area Plan would ensure quality cumulative development and avoid cumulative adverse effects to existing views and vistas of Oakland and the East Bay area viewshed.

Mitigation Measures

None Required.

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3.10 Noise

This section provides an overview of the existing noise environment in the Planning Area and surrounding environment, the regulatory framework, an analysis of potential noise impacts that would result from implementation of the proposed Plan, and mitigation measures where appropriate.

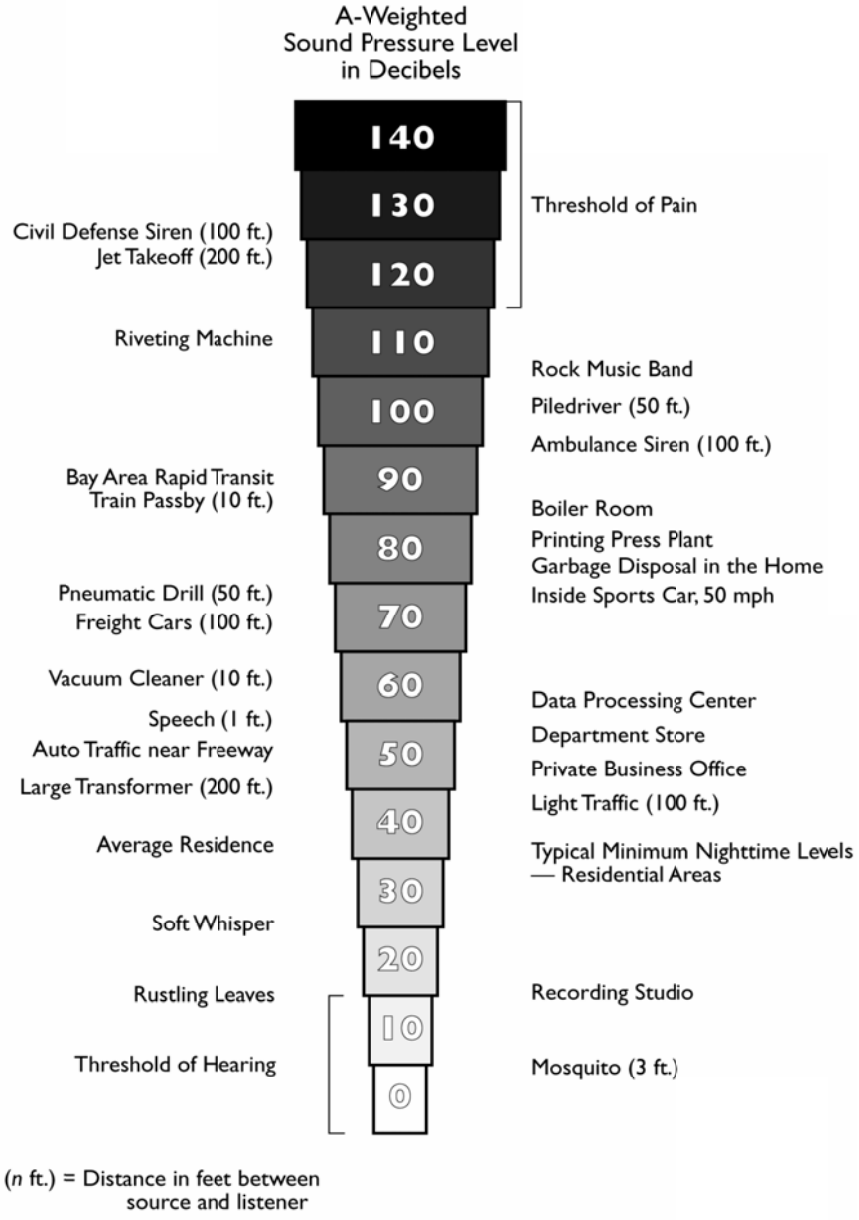
Introduction

Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ears decreased sensitivity to low and extremely high frequencies, instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.10-1**. For simplicity, all noise levels in this section use the “dB” symbol; however, all noise levels presented in this section are A-weighted.

Figure 3.10-1: Typical Sound Levels



Noise Exposure and Community Noise

The noise levels presented in **Figure 3.10-1** are representative of measured noise at a given instant in time, however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the

addition and subtraction of distant noise sources such as traffic and changes in atmospheric conditions. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

- **L_{eq}:** the equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).
- **L_{max}:** the instantaneous maximum noise level for a specified period of time.
- **L_{50}:** the noise level that is equaled or exceeded 50 percent of the specified time period. The L_{50} represents the median sound level.
- **L_{90}:** the noise level that is equaled or exceeded 90 percent of the specified time period. The L_{90} is sometimes used to represent the background sound level.
- **L_{dn}:** the L_{dn} is the same as the DNL (below).
- **DNL:** The DNL is a 24-hour day and night A-weighted noise exposure level which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night. Noise between 10:00 PM and 7:00 AM is weighted (penalized) by adding 10 dB to take into account the greater annoyance resulting from nighttime noises.
- **CNEL:** similar to the DNL, the Community Noise Equivalent Level (CNEL) adds a 5 dB "penalty" for the evening hours between 7:00 PM and 10:00 PM, and a 10 dB penalty between the hours of 10:00 PM and 7:00 AM.
- **SEL:** Sound Exposure Level (SEL) is the energy-based sum of a given duration noise event squeezed into a reference duration of one second.

Cumulative noise descriptors, DNL and CNEL, are directly correlated with the likelihood of public annoyance from transportation noise sources. Individual noise events, such as train pass-bys, are further described using single-event noise descriptors. For single events, the maximum measured noise level (L_{max}) is often cited, as is SEL.

As a general rule, in areas where the noise environment is dominated by traffic, the L_{eq} during the peak-hour is generally equivalent (+/- 1 to 2 dB) to the DNL at that location (Caltrans, 1998).

Sound Propagation and Attenuation

Sound levels naturally decrease as one moves farther away from the source. This basic attenuation rate is referred to as the geometric spreading loss. The basic rate of geometric spreading loss depends on whether a given noise source can be characterized as a point source or a line source.

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate between 6 dB for "hard sites" and 7.5 dB for "soft sites" for each doubling of distance from the reference measurement. Hard sites are those with a reflective surface between the source and the

receiver such as parking lots or smooth bodies of water. Soft sites have an absorptive ground surface such as soft dirt, grass, or scattered bushes and trees. In addition to geometric spreading, an excess ground attenuation value of 1.5 dB (per doubling of distance) is normally assumed for soft sites. Line sources (such as traffic noise from vehicles) attenuate at a rate between 3 dB for hard sites and 4.5 dB for soft sites for each doubling of distance from the reference measurement.[1]

Atmospheric effects such as wind and temperature gradients can also influence noise attenuation rates from both line and point sources of noise. Unlike ground attenuation, atmospheric effects are constantly changing and difficult to predict.

Trees and vegetation, buildings, and barriers reduce the noise level that would otherwise occur at a given receptor distance. However, for trees or a vegetative strip to have a noticeable effect on noise levels, it must be dense and wide. For example, a stand of trees must be at least 100 feet wide and dense enough to completely obstruct a visual path to the roadway to attenuate traffic noise by 5 dB.[2] A row of structures can shield more distant receivers depending upon the size and spacing of the intervening structures and the site geometry. Generally, for an at-grade highway in an average residential area where the first row of houses covers at least 40 percent of the total area, the reduction provided by the first row of houses is approximately 3 dB, and 1.5 dB for each additional row.[3] (Caltrans, 1998). Similar to vegetative strips discussed above, noise barriers, which include natural topography and soundwalls, reduce noise by blocking the line of sight between the source and receiver. Generally, a noise barrier that breaks the line of sight between source and receiver will provide at least a 5-dB reduction in noise.

Effects of Noise on People

Human reactions to noise range from annoyance, to the experience of interference with various activities, to hearing loss and stress-related health problems. The effects of noise on people can be placed into three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which a person has adapted: the so-called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new

[1] California Department of Transportation, October 1998.
[2] *Ibid.*
[3] *Ibid.*

noise will be judged by those hearing it. With regard to increases in A-weighted noise levels, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived;
- Outside of the laboratory, a 3-dB change is considered a just-perceivable difference;
- A change in level of at least 5 dB is required before any noticeable change in human response would be expected; and
- A 10-dB change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dB, the combined sound level would be 53 dB, not 100 dB.

Sensitive Receptors

People in residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, natural areas, parks, and outdoor recreation areas are generally more sensitive to noise than are people at commercial and industrial establishments. Consequently, the noise standards for sensitive land uses are more stringent than those for less sensitive uses.

Environmental Setting

PHYSICAL SETTING

Noise in the Planning Area

The major noise sources in Oakland, as in most cities, are transportation activities – specifically, motor vehicle traffic on major thoroughfares, which continuously generates noise throughout the city; rail operations, including those of the Bay Area Rapid Transit (BART), which produce significant noise levels intermittently along railroad alignments; and operations at Oakland International Airport.

The major noise sources in the Planning Area are vehicular traffic on Interstate 880 (I-880) and major roadways, and Union Pacific and Amtrak operations. **Table 3.10-1** summarizes existing noise contours, based on an analysis of current traffic volumes on major roadways in the Planning Area. For I-880, the distance from the roadway center to the 70 L_{dn} noise contour is approximately 415 feet, generally extending north to 7th Street and south to 4th Street. The distance from the roadway center to the 65 L_{dn} noise contour is approximately 900 feet, extending to mid-block between 8th and 9th Streets and south to cover all of the Planning Area south of I-880. The distance from the roadway center to the 60 L_{dn} noise contour is approximately 1,925 feet, extending to between 12th and 13th Streets. The 70 L_{dn} noise contour is estimated to be within 50 feet of the roadway centerline for all other roadways in the Planning Area except for Harrison Street south of 7th Street and Lake Merritt Boulevard between 12th Street and International. The 65 L_{dn} contour ranges from less than 50 feet from the roadway centerline for less-

traveled streets to 100 to 120 feet along Lake Merritt Boulevard, with most streets in the range of 60 to 90 feet.

BART runs underground through the Planning Area and therefore does not contribute to noise impacts. According to the Oakland International Airport Master Plan, the Planning Area is outside of the 60 dB CNEL contour for 2004 and 2010 (projected).[4]

[4] Port of Oakland. Oakland International Airport Masterplan, March 2006.

Table 3.10-1: Existing Baseline Traffic Noise Levels in the Planning Area

Roadway	*Segment*			*Peak Hour Traffic Volume*	*Speed (mph)*	*Truck %*	*Distance (ft) from Centerline to DNL Contour*			
							70	*65*	*60*	*55*
North/South Roadways										
Broadway	south	of	11th	1210	25	10.0%	<50	101	217	467
Broadway	11th St.	to	12th	1270	25	10.0%	<50	104	224	482
Broadway	north	of	12th	1220	25	10.0%	<50	101	218	470
Webster Street	south	of	8th	1180	25	6.0%	<50	74	159	342
Webster Street	8th St.	to	9th	1130	25	10.0%	<50	96	207	446
Webster Street	north	of	9th	1250	25	10.0%	<50	103	222	477
Harrison Street	south	of	7th	1805	45	2.8%	56	120	258	555
Harrison Street	7th St.	to	8th	640	25	3.5%	<50	<50	79	171
Harrison Street	north	of	8th	430	25	5.0%	<50	<50	73	158
Jackson Street	south	of	5th	800	25	5.0%	<50	51	111	239
Jackson Street	5th St.	to	6th	830	25	5.0%	<50	53	114	245
Jackson Street	6th St.	to	7th	1480	25	7.0%	<50	93	201	434
Jackson Street	7th St.	to	8th	570	25	10.0%	<50	61	131	283
Jackson Street	north	of	8th	530	25	10.0%	<50	58	125	269
Madison Street	south	of	5th	120	25	4.5%	<50	<50	<50	64
Madison Street	5th St.	to	6th	800	25	10.0%	<50	76	165	354
Madison Street	6th St.	to	7th	980	25	10.0%	<50	87	188	406
Madison Street	7th St.	to	8th	910	25	10.0%	<50	83	179	386
Madison Street	8th St.	to	9th	830	25	10.0%	<50	78	169	363
Madison Street	9th St.	to	10th	760	25	10.0%	<50	74	159	343
Madison Street	10th St.	to	11th	930	25	10.0%	<50	84	182	392
Madison Street	11th St.	to	12th	790	25	10.0%	<50	76	163	351
Madison Street	12th St.	to	13th	670	25	10.0%	<50	68	146	315
Madison Street	13th St.	to	14th	610	25	10.0%	<50	64	137	296

Table 3.10-1: Existing Baseline Traffic Noise Levels in the Planning Area

Roadway	*Segment*			*Peak Hour Traffic Volume*	*Speed (mph)*	*Truck %*	*Distance (ft) from Centerline to DNL Contour*			
							70	*65*	*60*	*55*
Madison Street	north	of	14th	660	25	10.0%	<50	67	145	312
Oak Street	south	of	5th	710	25	9.0%	<50	66	143	308
Oak Street	5th St.	to	6th	730	25	5.0%	<50	<50	104	225
Oak Street	6th St.	to	7th	1,020	25	7.5%	<50	76	163	352
Oak Street	7th St.	to	8th	970	25	10.0%	<50	87	187	403
Oak Street	8th St.	to	9th	910	25	10.0%	<50	83	179	386
Oak Street	9th St.	to	10th	920	25	10.0%	<50	84	181	389
Oak Street	10th St.	to	12th	940	25	10.0%	<50	85	183	395
Oak Street	12th St.	to	13th	650	25	10.0%	<50	66	143	309
Oak Street	13th St.	to	14th	640	25	10.0%	<50	66	142	305
Oak Street	north	of	14th	680	25	10.0%	<50	69	148	318
East/West Roadways										
Highway 880				14,254	55	10.0%	415	894	1926	4150
5th Street	West	of	Jackson	1,010	30	5.0%	<50	71	152	328
5th Street	Jackson	to	Madison	590	25	4.0%	<50	<50	80	173
5th Street	Madison	to	Oak	1,240	25	10.0%	<50	102	220	475
5th Street	East	of	Oak	950	30	10.0%	<50	98	212	457
6th Street	Jackson	to	Madison	420	25	10.0%	<50	<50	107	231
6th Street	Madison	to	Oak	240	25	6.0%	<50	<50	55	118
7th Street	West	of	Harrison	430	25	10.0%	<50	50	109	234
7th Street	Harrison	to	Jackson	1,570	30	4.0%	<50	85	183	395
7th Street	Jackson	to	Madison	980	25	9.0%	<50	82	177	381
7th Street	Madison	to	Oak	900	25	10.0%	<50	83	178	383
7th Street	East	of	Oak	770	25	6.0%	<50	55	119	257
8th Street	West	of	Webster	780	25	6.0%	<50	56	120	259

Table 3.10-1: Existing Baseline Traffic Noise Levels in the Planning Area

Roadway	*Segment*			*Peak Hour Traffic Volume*	*Speed (mph)*	*Truck %*	*Distance (ft) from Centerline to DNL Contour*			
							70	*65*	*60*	*55*
8th Street	Webster	to	Harrison	810	25	3.0%	<50	<50	86	186
8th Street	Harrison	to	Jackson	590	25	5.0%	<50	<50	90	195
8th Street	Jackson	to	Madison	570	25	5.0%	<50	<50	88	191
8th Street	Madison	to	Oak	710	25	8.0%	<50	62	133	287
8th Street	Oak	to	Fallon	640	25	2.0%	<50	<50	61	132
East 8th Street	Fallon	to	5th Ave.	1,490	25	7.0%	<50	94	202	436
11th Street	West	of	Madison	700	25	10.0%	<50	70	151	324
11th Street	East	of	Madison	630	25	7.0%	<50	53	114	245
12th Street	West	of	Madison	840	25	8.0%	<50	69	149	321
12th Street	Madison	to	Oak	1,010	25	6.0%	<50	66	143	308
12th Street	Oak	to	Lake Merritt	1,070	25	5.0%	<50	62	135	290
14th Street	West	of	Madison	630	25	8.0%	<50	57	123	265
14th Street	Madison	to	Oak	730	25	9.0%	<50	67	145	313
Lake Merritt Blvd.	14th	to	12th	690	25	10.0%	<50	69	149	321
Lake Merritt Blvd.	12th	to	International	2,090	25	7.0%	55	118	253	546
Lake Merritt Blvd.	East	of	International	1,430	30	6.0%	<50	98	211	454

Source: Charles Salter Associates, 2012.

REGULATORY SETTING

Federal

Generally, the federal government sets noise standards for transportation-related noise sources that are closely linked to interstate commerce, such as aircraft, locomotives, and trucks. For those noise sources, the state government is pre-empted from establishing more stringent standards.

State

The State of California has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The State also establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by State and local law enforcement officials.

The Governor's Office of Planning and Research provides guidelines to be used in development of a Noise Element. These guidelines include a sound level/land use compatibility chart that divides outdoor L_{dn} ranges into four compatibility categories (normally acceptable, conditionally acceptable, normally unacceptable and clearly unacceptable) based on land use. For many land uses, the chart shows overlapping L_{dn} ranges for two or more categories. These overlapping L_{dn} ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations.

Local

City of Oakland Municipal Code – Performance Standards

The Oakland Municipal Code regulates noise in the City of Oakland. These noise standards, contained in Chapter 17.120.050 (Noise) of the Municipal Code, are shown in **Tables 3.10-2 and 3.10-3** and cover residential and civic, commercial, manufacturing/industrial, and construction noise. The Code states that "all activities shall be so operated that the noise level inherently and regularly generated by these activities across real property lines shall not exceed the applicable values indicated in [these tables]."

In the event that the measured ambient noise level exceeds the applicable noise level standard in any category, the stated applicable noise level shall be adjusted so as to equal the ambient noise level. Each of the noise level standards specified in the tables shall be reduced by 5 dBA for a simple tone noise such as a whine, screech, or hum, noise consisting primarily of speech or music, or for recurring impulse noise such as hammering or riveting. For example, an industrial process producing a recurring impulse noise for 20 minutes every hour during the daytime would be required to achieve a standard 5 dBA lower than the 60 dBA standard in Table 3.10-2 at a residential property line, or 55 dBA.

Table 3.10-2: City of Oakland Operational Noise Standards at Receiving Property Line, dBA[1]

Receiving Land Use	*Cumulative No. of Minutes in a 1-Hr Period*[2]	*Maximum Allowable Noise Level (dBA)*	
		Daytime 7 a.m.-10 p.m.	*Nighttime 10 p.m.-7 a.m.*
Residential and Civic[3]	20 (L_{33})	60	45
	10 ($L_{16.7}$)	65	50
	5 ($L_{8.3}$)	70	55
	1 ($L_{1.7}$)	75	60
	0 (L_{max})	80	65
		Anytime	
Commercial	20 (L_{33})	65	
	10 ($L_{16.7}$)	70	
	5 ($L_{8.3}$)	75	
	1 ($L_{1.7}$)	80	
	0 (L_{max})	85	
Manufacturing, Mining, and Quarrying	20 (L_{33})	70	
	10 ($L_{16.7}$)	75	
	5 ($L_{8.3}$)	80	
	1 ($L_{1.7}$)	85	
	0 (L_{max})	90	

Notes:

1. These standards are reduced 5 dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.
2. L_x represents the noise level that is exceeded X percent of a given period. L_{max} is the maximum instantaneous noise level.
3. Legal residences, schools and childcare facilities, health care or nursing home, public open space, or similarly sensitive land uses.

Source: City of Oakland Municipal Code.

The daytime noise level received by any residential, commercial, or industrial land use which is produced by any non-scheduled, intermittent, short-term construction or demolition operation (fewer than 10 days) or by any repetitively scheduled and relatively long-term construction or demolition operation (10 days or more) shall not exceed the maximum allowable receiving noise level standards described in **Table 3.10-3**.

The nighttime noise level received by any land use and produced by any construction or demolition activity between weekday hours of 7 PM and 7 AM or between 8 PM and 9 AM on weekends and federal holidays must comply with provisions outlined in the Noise Ordinance, or will be considered a nuisance. All activities, except those located within the IG or the M-40 zones, or in the IG or M-30 zones more than four hundred (400) feet from any residential zone boundary, must be operated so as not to create a vibration which is perceptible without instruments by the average person at or beyond any lot line of the lot containing such activities. Ground vibration caused by motor vehicles, trains, and temporary construction or demolition work is exempted from this standard.

Table 3.10-3: City of Oakland Construction Noise Standards at Receiving Property Line, dBA[1]

	Maximum Allowable Noise Level (dBA)	
	Weekdays	*Weekends*
Receiving Land Use	*7 a.m.–7 p.m.*	*9 a.m.–8 p.m.*
Fewer than 10 Days		
Residential	80	65
Commercial, Industrial	85	70
More than 10 Days		
Residential	65	55
Commercial, Industrial	70	60

Note:

1. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

Source: City of Oakland Municipal Code.

In addition, Chapter 8.18 of the Municipal Code, regarding nuisances, prohibits excessive, annoying, and persistent noises.

City of Oakland's General Plan

The following are the policies and actions of the Noise Element and other elements of the General Plan that apply to the proposed Station Area Plan.

Noise Element

Policy 1: Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.

Action 1.1: Use the noise-land use compatibility matrix (Figure 6 of the Noise Element) in conjunction with the noise contour maps (especially for roadway traffic) to evaluate the acceptability of residential and other proposed land uses, as well as the need for any mitigation or abatement measures to achieve the desired degree of acceptability.

Action 1.2: Continue using the City's zoning regulations and permit processes to limit the hours of operation of noise-producing activities that create conflicts with residential uses, and to attach noise-abatement requirements to such activities.

Policy 2: Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.

Action 2.1: Review the various noise prohibitions and restrictions under the City's nuisance noise ordinance and revise the ordinance if necessary.

Action 2.2: As resources permit, increase enforcement of noise-related complaints and also of vehicle speed limits and of operational noise from cars, trucks, and motorcycles.

Policy 3: Reduce the community's exposure to noise by minimizing the noise levels that are received by Oakland residents and others in the City. (This policy addresses the reception of noise whereas Policy 2 addresses the generation of noise.)

Action 3.1: Continue to use the building permit application process to enforce the California Noise Insulation Standards regulating the maximum allowable interior noise level in new multi-unit buildings.

Action 3.2: Review the City's noise performance standards and revise them as appropriate to be consistent with City Council policy.

Action 3.3: Demand that Caltrans implement sound barriers, building retrofit programs, and other measures to mitigate to the maximum extent feasible noise impacts on residential and other sensitive land uses from any new, widened, or upgraded roadways; any new sound barrier must conform to City policies and standards regarding visual and aesthetic resources and quality.

Land Use and Transportation Element

Policy W1.3: **Reducing land use conflicts.** Land uses and impacts generated from Port or neighborhood activities should be buffered, protecting adjacent residential areas from the impacts of seaport, airport, or other industrial uses. Appropriate siting of industrial activities, buffering (e.g., landscaping, fencing, transitional uses, etc.), truck traffic management efforts, and other mitigations should be used to minimize the impact of incompatible uses.

Policy N5.2: **Buffering residential areas.** Residential areas should be buffered and reinforced from conflicting uses through the establishment of performance-based regulations, the removal of non-conforming uses, and other tools.

Policy N11.4: **Alleviating Public Nuisances.** The City should strive to alleviate public nuisances and unsafe and illegal activities. Code Enforcement efforts should be given as high a priority as facilitating the development process. Public nuisance regulations should be designed to allow community members to use City codes to facilitate nuisance abatement in their neighborhood.

The Noise Element features the City's Land Use Compatibility Guidelines, which are adapted from those provided by the Governor's Office of Planning and Research and summarized below. These guidelines include a sound level/land use compatibility chart that divides outdoor L_{dn} ranges into four compatibility categories (normally acceptable, conditionally acceptable, normally unacceptable and clearly unacceptable) based on land use, as shown on **Table 3.10-4**.

Table 3.10-4: Oakland General Plan Land Use Compatibility Guidelines

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE (L_{DN} OR CNEL, dB)					
	55	60	65	70	75	80
Residential	NA	CA		NU		CU
Transient lodging – motels, hotels	NA		CA		NU	CU
Schools, libraries, churches, hospitals, nursing homes	NA	CA		NU		CU
Auditoriums, concert halls, amphitheaters	CA			CU		
Sports arenas, outdoor spectator sports	CA				CU	
Playgrounds, neighborhood parks	NA		NU		CU	
Golf courses, riding stables, water recreation, cemeteries	NA			NU		CU
Office buildings, business commercial and professional	NA		CA		NU	
Industrial, manufacturing, utilities, agriculture	NA			CA		NU

NA	NORMALLY ACCEPTABLE: Development may occur without an analysis of potential noise impacts *to the proposed development* (though it might still be necessary to analyze noise impacts that the project might have *on its surroundings*).
CA	CONDITIONALLY ACCEPTABLE: Development should be undertaken only after an analysis of noise-reduction requirements is conducted and if necessary noise-mitigating features are included.
NU	NORMALLY UNACCEPTABLE: Development should generally be discouraged; it may be undertaken only if a detailed analysis of the noise-reduction requirements is conducted, and if highly effective noise mitigation features are included.
CU	CLEARLY UNACCEPTABLE: Development should not be undertaken.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-28. Days/Hours of Construction Operation[5]

Ongoing throughout demolition, grading, and/or construction

The project applicant shall require construction contractors to limit standard construction activities as follows:

a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

b. Any construction activity proposed to occur outside of the standard hours of 7:00 a.m. to 7:00 p.m. Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis, with criteria including the proximity of residential uses and a consideration of residents' preferences for whether the activity is acceptable if the overall duration of construction is shortened, and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c. Construction activity shall not occur on Saturdays, with the following possible exceptions:

    1. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case-by-case basis, with criteria including the proximity of residential uses and a consideration of residents' preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

    2. After the building is enclosed, requests for Saturday construction activities shall only be allowed with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d. No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e. No construction activity shall take place on Sundays or Federal holidays.

f. Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

g. Applicant shall use temporary power poles instead of generators where feasible.

[5] These Development Standards apply to ALL construction projects.

SCA-29. Noise Control

Ongoing throughout demolition, grading, and/or construction

To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division's and the Building Services Division's review and approval, which includes the following measures:

a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds, wherever feasible).

b. Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c. Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

d. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

SCA-30. Noise Complaint Procedures

Ongoing throughout demolition, grading, and/or construction

Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a. A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department (during regular construction hours and off-hours);

b. A sign posted on-site pertaining to permitted construction days and hours, complaint procedures, and whom to notify in the event of a problem. The sign shall also include a listing of both the City's and construction contractor's telephone numbers (during regular construction hours and off-hours);

c. The designation of an on-site construction complaint and enforcement manager for the project;

d. Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e. A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

SCA-31. Interior Noise

Prior to issuance of a building permit and Certificate of Occupancy

If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls), and/or other appropriate features/measures, shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval prior to issuance of a building permit. Final recommendations for sound-rated assemblies, and/or other appropriate features/measures, will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, or HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent), that:

a. Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and

b. Demonstrates compliance with interior noise standards based upon performance testing of a sample unit.

c. Inclusion of a Statement of Disclosure Notice in the Covenants, Conditions, and Restrictions (CC&R) on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following:

    1. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit, and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis**.**

    2. Prohibition of Z-duct construction.

SCA-32. Operational Noise-General

Ongoing

Noise levels from the activity, property, or any mechanical equipment on-site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning and Building Services Divisions.

SCA-38. Vibration[6]

Prior to issuance of a building permit

A qualified acoustical consultant shall be retained by the project applicant during the design phase of the project to comment on structural design as it relates to reducing groundborne vibration at the project site. If required in order to reduce groundborne vibration to acceptable levels, the project applicant shall incorporate special building methods to reduce groundborne vibration being transmitted into project structures. The City shall review and approve the recommendations of the acoustical consultant and the plans implementing such recommendations. Applicant shall implement the approved plans. Potential methods include the following:

a. Isolation of foundation and footings using resilient elements such as rubber bearing pads or springs, such as a "spring isolation" system that consists of resilient spring supports that can support the podium or residential foundations. The specific system shall be selected so that it can properly support the structural loads, and provide adequate filtering of ground-borne vibration to the residences above.

b. Trenching, which involves excavating soil between the railway/freeway and the project so that the vibration path is interrupted, thereby reducing the vibration levels before they enter the project's structures. Since the reduction in vibration level is based on a ratio between trench depth and vibration wavelength, additional measurements shall be conducted to determine the vibration wavelengths affecting the project. Based on the resulting measurement findings, an adequate trench depth and, if required, suitable fill shall be identified (such as foamed styrene packing pellets (i.e., Styrofoam) or low-density polyethylene).

SCA-39. Pile Driving and Other Extreme Noise Generators[7]

Ongoing throughout demolition, grading, and/or construction

To further reduce potential pier drilling, pile driving, and/or other extreme noise generating construction impacts greater than 90 dBA, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity:

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[6] These Development Standards apply to ALL residential projects that are located adjacent to an active rail line.

[7] These Development Standards apply to ALL projects that involve pile driving or other extreme noise generation greater than 90 dBA.

a. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

b. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

c. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings—by the use of sound blankets, for example—and implement such measures if such measures are feasible and would noticeably reduce noise impacts; and

e. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites, including those in the Planning Area.

The Housing Element EIR analyzed the potential impacts of exposing new sensitive receptors to excessive noise levels related to construction activities, traffic, and/or stationary sources (as embodied in Impact NO-1 through NO-6 of the Housing Element EIR). No significant impacts were identified, and no mitigation was required. Compliance with General Plan policies in the Noise Element and LUTE, along with Chapter 17 of the Municipal Code and the City's SCAs, would ensure that development under the Housing Element would comply with federal, state, and local laws regarding noise. The city's Municipal Code would also require regulation of noise generated from stationary sources.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact on the environment if it would:

1. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts.[8] During the hours of 7:00 pm to 7:00 am on weekdays and 8:00 pm to 9:00 am on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard (see **Table 3.10-3)**;

[8] The acoustical analysis must identify, at a minimum, (a) the types of construction equipment expected to be used and the noise levels typically associated with the construction equipment, and (b) the surrounding land uses, including any sensitive land uses (e.g., schools and childcare facilities, health care and nursing homes, public open space). If sensitive land uses are present, the acoustical analysis must recommend measures to reduce potential impacts.

2. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise;

3. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise (see **Table 3.10-2)**;

4. Generate noise resulting in a 5-dBA permanent increase in ambient noise levels in the proposed Plan vicinity above levels existing without the proposed Plan; or, if under a cumulative scenario where the cumulative increase results in a 5-dBA permanent increase in ambient noise levels in the proposed Plan vicinity without the proposed Plan (i.e., the cumulative condition including the proposed Plan compared to the existing conditions) and a 3-dBA permanent increase is attributable to the proposed Plan (i.e., the cumulative condition including the proposed Plan compared to the cumulative baseline condition without the proposed Plan) [NOTE: Outside of a laboratory, a 3-dBA change is considered a just-perceivable difference. Therefore, 3 dBA is used to determine if the proposed Plan-related noise increases are cumulatively considerable.];

5. Expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories, and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (California Code of Regulations (CCR) Part 2, Title 24);

6. Expose the Planning Area to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan (see **Table 3.10-4**) after incorporation of all applicable SCA;[9]

7. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration (OSHA));

8. During either proposed Plan construction or proposed Plan operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA);[10]

9. Be located within an airport land use plan and would expose people residing or working in the Planning Area to excessive noise levels; or

10. Be located within the vicinity of a private airstrip, and would expose people residing or working in the Planning Area to excessive noise levels.

[9] The evaluation of land use compatibility should consider the following factors: type of noise source; the sensitivity of the noise receptor; the noise reduction likely to be provided by structures; the degree to which the noise source may interfere with speech, sleep, or other activities characteristic of the land use; seasonal variations in noise source levels; existing outdoor ambient levels; general societal attitudes towards the noise source; prior history of the noise source; and tonal characteristics of the noise source. To the extent that any of these factors can be evaluated, the measured or computed noise exposure values may be adjusted in order to more accurately assess local sentiments towards acceptable noise exposure (Oakland General Plan, Noise Element, 2005).

[10] The FTA criteria were developed to apply to transit-related groundborne vibration. However, these criteria should be applied to transit-related and non-transit-related sources of vibration.

METHODOLOGY AND ASSUMPTIONS

Noise impacts are assessed based on a comparative analysis of the noise levels resulting from the proposed Plan and the noise levels under existing conditions. Analysis of temporary construction noise effects is based on typical construction phases and equipment noise levels and attenuation of those noise levels due to distances between the construction activity and the sensitive receptors near the sources of construction noise.

In establishing noise contours for land-use planning, it is customary to ignore noise attenuation afforded by buildings, roadway elevations, and depressions, and to minimize the barrier effect of natural terrain features. The result is a worst-case estimate of the existing and future (projected) noise environment. The assumption is that it is more desirable to overestimate the potential noise at a future noise-sensitive development site than to underestimate the noise environment and allow for potentially incompatible land-use development.

Noise contours were developed by Charles M. Salter Associates calculated based on current and projected peak hour traffic volumes generated by using standard traffic models. The traffic analysis determines Level of Service at signalized intersections using the operations methodology published in the *2000 Highway Capacity Manual*[11] applied through software (Synchro) approved by the City of Oakland for preparing traffic impact studies. The evaluation of road segments reflects the speed of traffic traveling between intersections and the delay experienced approaching intersections. The Alameda County Transportation Commission (CTC) has established standardized procedures for measuring transportation facilities that are part of the County's Congestion Management Program. See Section 3.2 Transportation for more detail on traffic model methodology.

Table 3.10-1 shows the estimated depth of existing noise contours along key streets in the Planning Area, while **Table 3.10-7** describes the projected noise contours in 2035 with implementation of the proposed Plan.

SUMMARY OF IMPACTS

The proposed Lake Merritt Station Area Plan is expected to result in up to 4,900 additional housing units, approximately 1,229,000 additional square feet of office space, 404,000 additional square feet of retail, and 108,000 additional square feet of institutional uses. All of this new development will result in substantial temporary construction-related noise, potential new permanent noise sources, and additional vehicles to Planning Area roadways, resulting in higher community noise levels.

Impact NO-1 – Construction Noise

Construction-related noise associated with demolition, site preparation, grading, and other construction activities could result in a short-term impact. Construction under the proposed Plan could expose residential uses at 50 feet from construction sites to estimated temporary noise levels as high as 89 dB for typical machinery, or as high as 101 dB for pile drivers. This noise would exceed the General Plan standard of 80 and 85 dBA for short-term construction noise at receiving residential uses and commercial or industrial uses, respectively, for some distance around the construction sites. However, the City of Oakland has SCA that reinforce Noise Ordinance and nuisance standards for construction noise. These

[11] *Highway Capacity Manual*, Transportation Research Board, 2010.

SCA limit construction hours, require a noise reduction program including the use of best available control techniques on machinery, require that stationary noise sources are located as far from adjacent receptors as possible, and provide strict requirements for the use of impact tools such as jack hammers. Adherence to these requirements reduces this potential impact to a level that is less than significant.

Impact NO-2 – Operational Noise

The City of Oakland's Noise Ordinance regulates noise generation from permanent sources such as industrial uses or mechanical systems. Under the Ordinance, residential and civic land uses may be exposed to long-term noise levels of up to 60 dBA for up to 20 minutes per hour, or a maximum noise level for single sounds of 80 dbA between 7:00 am and 10:00 pm; other thresholds are set for other use types and hours of the day (see **Table 3.10-2**). Development under the Station Area Plan is not expected to result in new uses that would generate substantial noise, such as auto repair or industrial uses, and in some cases may result in the replacement of such uses. This is because the Plan emphasizes a transition to more mixed-use and residential development. New buildings will result in noise from mechanical equipment. However, this equipment will be standardized for noise reduction, and would not be expected to exceed Noise Ordinance thresholds. In addition, enforcement of the City's SCA 32: Operational Noise will reduce any future operational noise impact to less than significant.

Impact NO-3 –Increase in Ambient Noise

An increase in the ambient noise level of 5 dBA or greater compared to existing conditions, resulting from the proposed Plan, is considered significant by City of Oakland standards. New development is expected to affect the ambient noise environment by generating additional traffic, and by adding new sources of operational noise such as mechanical equipment. Noise analysis conducted for this EIR finds that the increase in traffic noise resulting from reasonably foreseeable maximum development under the proposed Plan would be less than 5 dB on all roadway segments studied. Mechanical noise from new buildings is expected to be emitted at a considerable distance from the ground and to attenuate before reaching the sidewalk. Altogether, the impact would be less than significant.

Impact NO-4 – Interior Noise

Residential uses, motels, and other uses such as dormitories and nursing homes, are required to have interior noise levels no greater than 45 dBA, per California's Noise Insulation Standards. To achieve these indoor noise standards, many new buildings with residential uses will need to achieve substantial noise reduction from exterior noise levels. The City's SCA 31 mandates incorporation of noise reduction measures into project design to achieve an acceptable interior noise level for residential uses. Compliance with existing City SCAs will reduce potential impacts related to interior noise to a less than significant level.

Impact NO-5 – Community Noise Environment

New development in the Planning Area is expected to be characterized primarily by mid- and high-rise residential and mixed-use buildings. New uses of all types will result in an increase in traffic on Planning Area roadways. This means that the land use most sensitive to noise will be more prominent, while community noise levels resulting from traffic will increase. Much of the Planning Area exceeds community noise level standards under existing conditions. Potential effects of the environment on the proposed Plan, such as the effects of existing traffic noise on new housing, are legally not required to be

analyzed or mitigated under CEQA. Nevertheless, this document analyzes such effects in order to provide that information to the public and decision-makers.

The presence of Interstate 880 and the Union Pacific/Amtrak line at the southern edge of the Planning Area are also important sources of noise. Based on future noise modeling along several key Planning Area streets, it is projected that community noise levels will exceed General Plan land use compatibility guidelines in many portions of the Planning Area. Noise modeling does not take into account the noise reduction provided by intervening structures, which is especially relevant in a highly-built-up area. The urban character of the area and the way traffic noise can be perceived as "background noise" also help to make elevated noise levels more easily tolerated here. Acceptable indoor noise levels will continue to be enforced for new development through compliance with SCA 31. Therefore, this potential impact is less than significant.

Impact NO-6 – Workplace Noise

Operational noise levels at workplaces are another potential concern. New development under the proposed Plan is not expected to result in new permanent land uses that involve noise-generating activities. However, construction activities associated with implementation of the proposed Plan could potentially expose employees at the work site to excessive noise, and traffic generated by new development will also create noise. With enforcement of existing City SCAs and federal, state, and local regulations, including Cal-OSHA standards, potential impacts related to occupational noise are reduced to less than significant.

Impact NO-7 – Groundborne Vibration

The FTA has established impact criteria for groundborne vibration from transit vehicles, and Oakland applies these criteria to both transit-related and other sources of vibration. The only permanent source of vibration in the Planning Area is the Union Pacific/Amtrak rail line along the southern edge of a portion of the Planning Area. Currently, this land is occupied by light industrial and parking uses. Under the proposed Station Area Plan, land along the rail line is expected to become part of the regional park land corridor along Lake Merritt Channel. Vibration impact criteria are not established for either of these use categories. If development of vibration-sensitive use does occur here, SCA 38 would require acoustical analysis and vibration reduction strategies, as needed.

Construction-related groundborne vibration would be temporary in nature and related noise impacts would be short-term. Activities such as pile-driving, blasting, drilling, and excavation have the highest potential for creating groundborne vibration impacts. With adherence to SCA 38: Vibration, and SCA 39:Pile Driving and Other Extreme Noise Generators, this potential impact will be less than significant.

Cumulative Impact NO-8 – Cumulative Increase in Ambient Noise

An increase in the ambient noise level of 5 dBA or greater compared to existing conditions, with 3 dBA attributable to the proposed Plan, is considered cumulatively significant by City of Oakland standards. Noise analysis conducted for this EIR finds that the increase in traffic noise at proposed Plan buildout of reasonably foreseeable maximum development is expected to result in increases in ambient noise levels of less than 5 dBA at most studied roadway segments, though a 5- or 6-dBA increase is expected along certain roadways. A comparison of total future projected trips under the proposed Plan compared to Cumulative No Project conditions shows that the proposed Plan would result in 17 percent of future

additional trips at the most, and under 5 percent of additional trips at most intersections. This would not be enough of a difference to result in an audible, 3-dBA increase in noise, so the potential impact would not be cumulatively significant.

The Cumulative Plus Project and Cumulative No Project scenarios cannot be compared with regard to operational noise from buildings since the location of future development under the Cumulative No Project scenario is not known. At the scale of the Planning Area, the difference is expected to be less than significant.

Issues Not Further Considered

No portion of the Planning Area is located within an airport land use plan area, within the 65 dBA noise contour of Oakland International Airport, or in the vicinity of any private airstrip. Thus there is no potential impact with regard to airport-related noise.

IMPACTS AND MITIGATION MEASURES

Impact NO-1

New development under the proposed Plan would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts, or generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise. ***(Less than Significant)***

The proposed Station Area Plan is expected to result in new construction of mid- and high-rise housing, mixed-use, office, and institutional buildings on up to 33 sites in the Planning Area over the next 20 years. The Plan would also result in extensive streetscape and other infrastructure improvements for which construction would be necessary. Ambient noise levels near areas of new development may temporarily increase due to construction activities.

Construction-related noise is considered a short-term noise impact associated with demolition, site preparation, grading, and other construction-related activities. Two types of short-term noise impacts could occur during these construction-related activities. First, the transport of workers and the movement of materials to and from the construction site could incrementally increase noise levels along local access roads. The second source of noise would result from the physical activities (e.g., grading) associated with any construction-related activities. Construction is performed in various distinct steps, each with its own mix of equipment, workers, and activities. Consequently, each step has its own noise characteristics. However, despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. **Table 3.10-5** shows typical exterior noise levels at various phases of construction, and **Table 3.10-6** shows typical noise levels associated with various types of construction-related machinery.

Table 3.10-5: Typical Construction Phase Noise Levels

Construction Phase	*Noise Level (dB, L_{eq})[1]*
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Finishing	89

Note:

1. Average noise levels 50 feet from the noisiest source and 200 feet from the rest of the equipment associated with a given construction phase. Noise levels correspond to commercial projects in a typical urban ambient noise environment.

Source: Bolt, Beranek and Newman, U.S. EPA, 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, 1971.

Table 3.10-6: Typical Noise Levels from Construction Equipment

Construction Equipment	*Noise Level (dB, L_{eq} at 50 feet)*
Truck	88
Concrete Mixer (Truck)	85
Scraper	89
Jack Hammer	88
Dozer	85
Paver	89
Generator	81
Pile Driver (Impact)	101
Loader	85
Grader	85
Backhoe	80

Source: Federal Transit Administration, 2006. Transit Noise and Vibration Impact Assessment, May 2006.

As **Table 3.10-6** suggests, construction under the proposed Plan could expose residential uses at 50 feet from construction sites to noise levels as high as 89 dB for typical machinery or as high as 101 dB for impact machinery. Noise from construction activity generally decreases at a rate of 6.0 to 7.5 dBA per doubling of distance. Thus at 100 feet, noise levels could still be as high as 83 to 95 dBA, exceeding the General Plan standard of 80 dBA for short-term construction noise at receiving residential uses (see **Table 3.10-3**).

The City of Oakland's Noise Ordinance and existing nuisance standards are intended to minimize the potential impact of construction noise by establishing work hours, requiring that all equipment be muffled, properly maintained, and located as far as possible from adjacent uses; and prohibiting the use of pile drivers and jack hammers on Sundays and holidays, except for emergencies.

These standards are reinforced by the City's SCA. SCA 28 limits construction operation to the hours from 7:00 am to 7:00 pm, Monday through Friday, except as allowed on a case-by-case basis, and further limits extreme noise-generating activities, mirroring Noise Ordinance requirements. SCA 29 requires projects to institute a noise reduction program, including the use of best available noise control techniques on machinery; includes stipulations for impact tools such as jack hammers; ensures that stationary sources are located as far from adjacent receptors as possible and that they are muffled; and that the noisiest phases of construction are limited to 10 days at a time or fewer. Again, these Conditions of Approval specifically reinforce Noise Ordinance requirements. SCA 39 requires site-specific noise attenuation measures for pile driving and other extreme sources of construction noise. Compliance with these SCA will ensure that construction noise resulting from development under the proposed Plan does not violate the City's Noise Ordinance, reducing this potential impact to less than significant.

Mitigation Measures

None required.

Impact NO-2

New development under the proposed Plan would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise. ***(Less than Significant)***

The City of Oakland's Noise Ordinance, together with implementation of SCA, regulates noise generation from stationary sources, also referred to as operational noise. **Table 3.10-2** presents the maximum allowable receiving noise levels that are considered acceptable for specified land use categories during the daytime and nighttime. Noise is measured at the lot line of the *receiving* land use, while the maximum noise standards apply to the *generating* use.

Residential and civic land uses may be exposed to long-term noise levels up to 60 dBA for up to 20 minutes per hour, or a maximum noise level for single sounds of 80 dBA, between the hours of 7:00 am and 10:00 pm. Substantially lower noise level maximums apply during the 10:00 pm to 7:00 am period. Commercial and industrial uses, meanwhile, may receive higher levels of noise—up to 70 dBA for up to 20 minutes per hour and 85 dBA for single noise events—with no distinction between day and night hours.

New development is expected to take place primarily on surface parking lots and low-intensity commercial uses. The proposed Plan does not support the development of uses that would generate substantial noise—such as automotive and industrial uses—and in some cases would result in the replacement of such activities. Still, new office, retail, and residential development would generate noise from heating, ventilating, and air conditioning mechanical equipment, and from mechanical garage doors. The City's SCA, including SCA 32: Operational Noise, reinforces the Noise Ordinance requirements. Furthermore, the mechanical equipment would be standardized for noise reduction, and noise generation would not be expected to exceed the City's established thresholds. The expected mix of future uses, and adherence to existing regulations, together with implementation of SCA, would reduce the potential impact from noise generation to a level that is less than significant.

Mitigation Measures

None required.

Impact NO-3

New development under the proposed Plan would not generate noise resulting in a 5-dBA permanent increase in ambient noise levels in the proposed Plan vicinity above levels existing without the proposed Plan. ***(Less than Significant)***

Following the City of Oakland's CEQA Thresholds of Significance Guidelines, the proposed Plan would have a significant effect on the environment if it would (1) generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project, or (2) if the cumulative increase results in a 5-dBA permanent increase in ambient noise levels in the project vicinity, and a 3-dBA permanent increase is attributable to the proposed Plan. Part (1) of the threshold requires a comparison between "Existing Plus Project" and "Existing" scenarios. Part (2) requires comparisons between (a) "Cumulative Plus Project" and "Existing," and (b) "Cumulative Plus Project" and "Cumulative No Project" scenarios. **Part 2 is discussed under Cumulative Impact NO-8.**

New development under the proposed Plan is expected to affect the community noise environment mainly by generating additional traffic. Noise levels were determined for this analysis using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model and the intersection analysis conducted for existing conditions, "Existing Plus Project" conditions, and "Cumulative Plus Project" conditions, as discussed in detail in Section 3.2 Transportation and Traffic and in Appendix D: Traffic Impact Analysis Report.

The ambient noise environment will also be affected by noise generated by new buildings that would be added under the proposed Station Area Plan. New operational noise from buildings will generally result from mechanical equipment. Equipment will be subject to Noise Ordinance and Building Code limitations as discussed under Impact 3.10-2. For mid- and high-rise buildings projected under the Plan, this equipment will typically be located several stories above sidewalk level. The resulting noise at sidewalk level will have attenuated substantially, and is not expected to be significant at the scale of the Planning Area. While there may be site-by-site effects, these will be addressed at the project level.

The cumulative increase in traffic noise at Plan buildout of reasonably foreseeable maximum development is projected to exceed 5 dBA along 10 of the 64 roadway segments modeled for this EIR, as described in more detail under Impact NO-8. The cumulative future noise environment includes more noise than would be created solely by Plan development. Therefore, only those roadways where cumulative noise would increase by 5 dBA or more could possibly experience significant permanent noise increases that exceed Part 1 of the noise threshold. Those 10 roadway segments were modeled in the "Existing Plus Project" scenario, representing the effect of Plan development on its own. As **Table 3.10-7** shows, none of these segments are projected to experience a noise increase of greater than 5 dB as a result of Plan development, represented by the difference between the "Existing Plus Project" and "Existing" scenarios, making this potential impact less than significant.

Table 3.10-7: Projected Traffic Noise Generated by Development Under the Proposed Plan

		Noise level at 50 ft setback (Ldn)		
Street	*Segment*	*Existing - 2005*	*Existing Plus*	*Difference between Existing Plus Project*

			Project	*and Existing (dB)*
Madison Street	South of 5th	57	59	3
6th Street	Jackson to Madison	65	69	4
7th Street	East of Oak	66	69	4
8th Street	West of Webster	66	69	3
8th Street	Webster to Harrison	64	67	3
8th Street	Harrison to Jackson	64	67	4
8th Street	Jackson to Madison	64	67	4
8th Street	Madison to Oak	66	70	4
8th Street	Oak to Fallon	61	65	4
Lake Merritt Blvd.	14th to 12th	67	71	4
Madison Street	South of 5th	57	59	3
6th Street	Jackson to Madison	65	69	4
7th Street	East of Oak	66	69	4
8th Street	West of Webster	66	69	3
8th Street	Webster to Harrison	64	67	3

Note: Numbers are rounded to nearest whole number.

Source: Charles Salter Associates, 2012, Kimley-Horn and Associates, 2012; Dyett & Bhatia, 2013.

Interim Year Scenario

Noise analysis was not done for an interim development scenario. However, it is expected that development in the Planning Area and in the larger region will occur incrementally, with overall increases in development over time. Consequently, we would expect ambient noise in the Planning Area to increase over time. Since the increase in noise is projected to be less than significant at the buildout year, it is reasonable to conclude that it will also be less than significant at any given interim year.

Mitigation Measures

None required.

Impact NO-4

New development under the proposed Plan would not expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories, and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24). *(Less than Significant)*

Multi-family residential development is expected to make up the greatest share of new development under the Station Area Plan, with a projected 4,900 new housing units in mid- and high-rise buildings throughout the Planning Area. One hotel is also expected to be developed. Many of the new buildings will be developed in areas where the existing community noise environment exceeds the General Plan's "normally acceptable" threshold of 65 dBA for residential uses. Residential uses, motels, and other uses such as dormitories and nursing homes, are required to have interior noise levels no greater than 45 dBA, per California's Noise Insulation Standards (CCR Part 2, Title 24). To achieve these indoor noise

standards, many new buildings with residential uses will need to incorporate noise reduction measures that have the effect of reducing noise levels by more than 20 dB from exterior levels.

To ensure that new development achieves the State standard, the General Plan identifies an Action to "continue to use the building-permit application process to enforce the California Noise Insulation Standards regulating the maximum allowable interior noise level in new multi-unit buildings." This action is put into effect by SCA 31: Interior Noise, which mandates noise reduction measures be incorporated into project design to achieve an acceptable interior noise level. Compliance with SCA 31 will reduce this impact to a less than significant level.

Mitigation Measures

None required.

Impact NO-5

New development under the proposed Plan would not expose people in the Planning Area to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval. ***(Less than Significant)***

New development in the Planning Area is expected to occur primarily in the form of mid- and high-rise mixed-use (residential with ground floor retail) buildings, as well as some new office and institutional development. New development will result in an increase in traffic on Planning Area roadways, which will increase community noise levels. As described in the Environmental Setting section, the existing community noise environment in much of the Planning Area is above "normally acceptable" conditions for residential development.

CEQA requires the analysis of potential adverse effects of the proposed Plan on the environment. Potential effects of the environment on the proposed Plan are not legally required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the proposed Plan in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the proposed Plan is identified, the document, as appropriate, identifies City SCA and/or project-specific non-CEQA recommendations to address these issues.

According to Oakland's land use compatibility guidelines, provided in **Table 3.10-4**, residential uses, as well as schools, libraries, churches, hospitals, and nursing homes, are compatible with noise levels up to 60 dBA and conditionally compatible with noise levels up to 70 dBA. As shown in **Table 3.10-8**, noise levels above 70 dBA are projected to be limited to within 50 feet of roadway centerlines on about half of the Planning Area roadways studied, including segments of Broadway, Harrison, Jackson, Oak, 6th, 8th, 11th, and 12th Streets. On streets with more traffic, the 70 dBA contour will extend as far as 94 feet from the centerline along Lake Merritt Boulevard, but more typically in the range of 50 to 70 feet. This means that a substantial portion of street-facing buildings would experience future exterior noise levels above 70 dBA, a condition considered "normally unacceptable," as well as portions that would experience "conditionally acceptable" noise levels. In addition, the 70 dBA noise contour related to traffic on I-880 is projected to lie approximately 470 feet from the roadway centerline, meaning that all residential uses between I-880 and 7th Street on the north or 4th Street on the south would experience a "normally unacceptable" or "unacceptable" community noise environment. Altogether, it is reasonable to conclude

that substantial portions of the Planning Area will have community noise levels resulting from traffic above those which the General Plan considers “normally acceptable.”

Table 3.10-8: Future Traffic Noise Levels in the Planning Area

Roadway	*Segment*			*Peak Hour Traffic Volume*	*Speed (mph)*	*Truck %*	*Distance (ft) from Centerline to DNL Contour*			
							70	*65*	*60*	*55*
North/South Roadways										
Broadway	south	of	11th	1,180	25	10.0%	<50	99	213	459
Broadway	11th St.	to	12th	1,280	25	10.0%	<50	104	225	485
Broadway	north	of	12th	1,300	25	10.0%	<50	106	227	490
Webster Street	south	of	8th	1,680	25	6.0%	<50	93	201	433
Webster Street	8th St.	to	9th	1,700	25	10.0%	59	126	272	586
Webster Street	north	of	9th	1,860	25	10.0%	62	134	289	622
Harrison Street	south	of	7th	2,320	45	2.8%	66	141	305	656
Harrison Street	7th St.	to	8th	1,460	25	3.5%	<50	64	138	296
Harrison Street	north	of	8th	690	25	5.0%	<50	<50	100	216
Jackson Street	south	of	5th	970	25	5.0%	<50	59	126	272
Jackson Street	5th St.	to	6th	1,170	25	5.0%	<50	66	143	308
Jackson Street	6th St.	to	7th	1,390	25	7.0%	<50	90	193	416
Jackson Street	7th St.	to	8th	1,010	25	10.0%	<50	89	192	414
Jackson Street	north	of	8th	970	25	10.0%	<50	87	187	403
Madison Street	south	of	5th	527	25	4.5%	<50	<50	79	171
Madison Street	5th St.	to	6th	1,150	25	10.0%	<50	97	210	451
Madison Street	6th St.	to	7th	1,800	25	10.0%	61	131	282	609
Madison Street	7th St.	to	8th	2,100	25	10.0%	67	145	313	674
Madison Street	8th St.	to	9th	1,540	25	10.0%	55	118	255	548
Madison Street	9th St.	to	10th	1,480	25	10.0%	53	115	248	534
Madison Street	10th St.	to	11th	1,770	25	10.0%	60	130	279	602
Madison Street	11th St.	to	12th	1,440	25	10.0%	52	113	243	524
Madison Street	12th St.	to	13th	1,430	25	10.0%	52	112	242	522
Madison Street	13th St.	to	14th	1,370	25	10.0%	51	109	235	507

Table 3.10-8: Future Traffic Noise Levels in the Planning Area

Roadway	*Segment*			*Peak Hour Traffic Volume*	*Speed (mph)*	*Truck %*	*Distance (ft) from Centerline to DNL Contour*			
							70	*65*	*60*	*55*
Madison Street	north	of	14th	1,530	25	10.0%	55	118	253	546
Oak Street	south	of	5th	1,090	25	9.0%	<50	88	190	409
Oak Street	5th St.	to	6th	1,400	25	5.0%	<50	75	161	347
Oak Street	6th St.	to	7th	1,780	25	7.5%	51	110	237	510
Oak Street	7th St.	to	8th	1,500	25	10.0%	54	116	250	539
Oak Street	8th St.	to	9th	1,300	25	10.0%	<50	106	227	490
Oak Street	9th St.	to	10th	1,280	25	10.0%	<50	104	225	485
Oak Street	10th St.	to	12th	1,270	25	10.0%	<50	104	224	482
Oak Street	12th St.	to	13th	1,010	25	10.0%	<50	89	192	414
Oak Street	13th St.	to	14th	850	25	10.0%	<50	80	171	369
Oak Street	north	of	14th	1,530	25	10.0%	55	118	253	546
East/West Roadways										
Highway 880				17,005	55	10.0%	467	1006	2167	4668
5th Street	West	of	Jackson	1,930	30	5.0%	51	109	234	505
5th Street	Jackson	to	Madison	1,260	25	4.0%	<50	62	133	287
5th Street	Madison	to	Oak	1,890	25	10.0%	63	135	292	629
5th Street	East	of	Oak	1,230	30	10.0%	54	117	252	542
6th Street	Jackson	to	Madison	1,330	25	10.0%	<50	107	231	497
6th Street	Madison	to	Oak	550	25	6.0%	<50	<50	95	206
7th Street	West	of	Harrison	1,120	25	10.0%	<50	96	206	444
7th Street	Harrison	to	Jackson	1,880	30	4.0%	<50	96	207	446
7th Street	Jackson	to	Madison	1,880	25	9.0%	59	127	273	589
7th Street	Madison	to	Oak	2,270	25	10.0%	71	153	330	710
7th Street	East	of	Oak	2,560	25	6.0%	57	123	266	573
8th Street	West	of	Webster	2,410	25	6.0%	55	119	256	550

Table 3.10-8: Future Traffic Noise Levels in the Planning Area

Roadway	*Segment*			*Peak Hour Traffic Volume*	*Speed (mph)*	*Truck %*	*Distance (ft) from Centerline to DNL Contour*			
							70	*65*	*60*	*55*
8th Street	Webster	to	Harrison	2,490	25	3.0%	<50	85	182	392
8th Street	Harrison	to	Jackson	1,700	25	5.0%	<50	85	183	395
8th Street	Jackson	to	Madison	1,730	25	5.0%	<50	86	185	399
8th Street	Madison	to	Oak	2,330	25	8.0%	63	137	294	634
8th Street	Oak	to	Fallon	2,460	25	2.0%	<50	70	151	325
East 8th Street	Fallon	to	5th Ave.	3,860	25	7.0%	82	177	381	822
11th Street	West	of	Madison	1,040	25	10.0%	<50	91	196	422
11th Street	East	of	Madison	700	25	7.0%	<50	57	122	263
12th Street	West	of	Madison	1,680	25	8.0%	51	110	237	510
12th Street	Madison	to	Oak	1,690	25	6.0%	<50	94	202	434
12th Street	Oak	to	Lake Merritt	1,590	25	5.0%	<50	81	175	378
14th Street	West	of	Madison	1,260	25	8.0%	<50	91	195	421
14th Street	Madison	to	Oak	1,700	25	9.0%	55	119	255	550
Lake Merritt Blvd.	14th	to	12th	2,350	25	10.0%	73	157	337	727
Lake Merritt Blvd.	12th	to	International	4,700	25	7.0%	94	202	435	937
Lake Merritt Blvd.	East	of	International	2,920	30	6.0%	73	157	339	730

Source: Charles Salter Associates, 2012.

The conclusion that community noise levels will exceed General Plan guidelines in many portions of the Planning Area must be qualified by several factors. First, the noise modeling does not account for the noise reduction likely to be provided by structures in between the subject building and the noise source. In a highly built-up environment—which will become more built-up over the course of the planning period—this factor is important. Second, the community noise environment will typically be made up of traffic noise, which is consistent in tone and can more easily be absorbed as background noise than can a noise environment characterized by sharp or intermittent noises. Third, the Planning Area is a highly urban location, which shapes the expectations of current and future residents and makes it more likely that they will have a higher tolerance for noise there than they might in the context of a typical city neighborhood or suburban environment. Finally, the more critical noise environment for residents is indoors, where daily activities most sensitive to noise take place. As described in more detail under Impact NO-4, acceptable indoor noise levels will be ensured through compliance with the City's SCA 31: Interior Noise.

Railroad operations are another source of noise in the portion of the Planning Area south of I-880 near the Union Pacific /Amtrak railroad. According to the Oakland General Plan's Noise Element, a typical train traveling at 25 mph may produce noise levels in excess of 95 dBA at a distance of 100 feet from the tracks, while train horns may approach 110 dBA. As described in the Introduction section, "line sources" such as noise from vehicles or trains attenuate at a rate between 3 dB and 4.5 dB for each doubling of distance from the reference measurement. Conservatively assuming a 3-dB reduction for each doubling of distance, noise would be reduced to 70 dB at a distance of about 800 feet, while train horns would be heard at above 70 dB for up to 1,300 feet.

Land impacted by the combination of rail and I-880 noise in the Planning Area is currently used for parking, light industrial, office, and recreation uses. Community noise levels of up to 80 dBA are considered conditionally acceptable for industrial and similar uses, a level that is exceeded for the occasional event (30 to 70 times per day, by FTA standards) of train pass-bys. In combination with the continuous noise of I-880, the community noise environment in this area exceeds General Plan noise standards today. The General Plan does not project future noise levels along rail lines given the unpredictability of future railroad operations.

The General Plan designates land on both sides of Lake Merritt Channel between the rail line and I-880 for park land. Under the proposed Station Area Plan, this transition from parking and light industrial uses to park land is expected to occur. The General Plan does not specify regional park land as a land use category for the purpose of assigning noise exposure standards. However, the maximum acceptable noise level for neighborhood parks is 65 dBA, while the maximum acceptable noise level for water recreation areas is 70 dBA. The General Plan noise standards are not currently being met, and will not be met in the portion of the Planning Area between the Union Pacific rail line and I-880 that is proposed for park land. The Laney parking lot site is expected to develop to include instructional and institutional uses and park land, which would experience a community noise environment above 70 dBA.

To conclude, many parts of the Planning Area are expected to experience noise levels in excess of the General Plan's land use compatibility guidelines, and Plan-related traffic will contribute to increased noise. However, this will occur in the context of a community noise environment that currently exceeds standards in much of the Planning Area. In addition, the City of Oakland's General Plan and Noise Ordinance provide a strong policy framework for minimizing noise impacts in new development. The Noise Element's Action 3.1 requires that new multi-unit buildings meet State insulation standards

regulating the maximum allowable interior noise level. SCA 31 requires that noise reduction in the form of sound-rated assemblies (windows, exterior doors, and walls) and/or other measures is incorporated into project design, and that a qualified acoustical consultant confirm that quality control was exercised and that interior noise standards were achieved during performance testing before a Certificate of Occupancy is approved. Other SCAs ensure that noise and vibration from construction and operations are minimized. Existing General Plan policies specifically focused on land use compatibility include Policies W1.3 (reducing land use conflicts); N5.2 (buffering residential areas), and N11.6 (alleviating public nuisances). Implementation of these existing policies and Conditions of Approval would ensure that the noise environment in the Planning Area does not increase in a manner that worsens existing land use compatibility or expose noise-sensitive land uses to "unacceptable" noise levels. This will be true at Plan buildout of reasonably foreseeable maximum development and at any time during the planning period. Any potential noise impacts are thus reduced to a less than significant level.

Mitigation Measures

None required.

Impact NO-6

New development under the proposed Plan would not expose persons to noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration (OSHA)). ***(Less than Significant)***

Noise levels at workplaces are another potential concern. The proposed Plan would not facilitate development of new land uses that would involve substantial operational noise generation that could expose workers to interior noise levels in excess of OSHA standards. Construction activities, heavy machinery, and industrial processes can generate high noise levels in their immediate vicinity, and traffic generated by new development will create noise. When not properly protected, employees that work in loud environments can suffer hearing loss from excessive noise exposure. Applicable businesses (including construction contractors) within the State of California are required to comply with the California OSHA noise exposure standards to avoid health risks associated with loud work environments. In addition, Oakland has established its own, more restrictive noise exposure standards as Section 17.120 of the Planning Code. Construction activities and any new employer established in the Planning Area will be required to adhere to these regulations, reducing potential impacts related to occupational noise to less than significant.

Mitigation Measures

None required.

Impact NO-7

During either proposed Plan construction or operation, new development under the proposed Station Area Plan would not expose persons to or generate groundborne vibration that exceeds criteria established by the Federal Transit Administration (FTA). ***(Less than Significant)***

The FTA has established impact criteria for groundborne vibration from transit vehicles, as shown in **Table 3.10-9**. The City of Oakland has determined that these criteria are appropriately applied to both transit- and non-transit-related sources of vibration.

Table 3.10-9: FTA Groundborne Vibration Impact Criteria

Land Use Category	*Frequent Events*[1]	*Occasional Events*[2]	*Infrequent Events*[3]
Category I: Buildings where vibration would interfere with interior operations	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category II: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category III: Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB

Notes:

1. More than 70 vibration events of the same source per day.
2. Between 30 and 70 vibration events of the same source per day.
3. Less than 30 vibration events of the same source per day.
4. This threshold 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 levels. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.

Within the Planning Area, the Bay Area Rapid Transit (BART) system operates in tunnels underground, and does not cause noticeable vibration aboveground. A Union Pacific freight rail line and Amtrak run along and adjacent to the Embarcadero, at the very southern edge of the Planning Area. Passenger trains currently pass by this location 21 times per day on weekdays, while freight train traffic is variable and occurs during both day and night. It is reasonable to assume that currently, railroad noise is an occasional source of vibration as determined by FTA standards (**see Table 3.10-11).**

A recent study of freight rail operations along another northern California corridor found the expected impact of trains to be 78 vibration decibels (VdB) at 50 feet from the tracks, 75 VdB at 70 feet, 72 VdB at 100 feet from the tracks, and 65 VdB at 225 feet from the tracks.[12] Currently, parking, warehousing, light industrial, and transportation facilities (including I-880) are the only land uses within 225 feet of the tracks within the Planning Area. Under the proposed Station Area Plan, this land would transition to become part of the regional park land corridor along Lake Merritt Channel. Vibration impact criteria are not established for these land uses. The City's SCA 38 requires that any new development adjacent to an active rail line undertake an acoustical analysis and incorporate vibration-reducing methods if necessary.

Construction-related groundborne vibration is considered a short-term noise impact associated with demolition site preparation, grading, and other construction-related activities. Construction activities associated with new development would be temporary in nature and related vibration impacts would be short-term. Depending on the type of machinery used, construction activity can result in varying degrees of vibration. Activities such as pile-driving, blasting, drilling, and excavation have the highest potential

[12] North Coast Railroad Authority, Draft EIR for Russian River Division (RRD) Freight Rail Project, November 2009.

for creating groundborne vibration impacts. The potential construction-related noise and vibration impacts depend on the proximity of construction activities to sensitive receptors, the presence of intervening barriers, and the number, types, and duration of construction equipment used. With adherence to the City's existing SCA, including strict limitations on construction hours of operation (SCA 38) and site-specific noise attenuation measures for all projects involving pile driving or other extreme noise generation (SCA 39), this potential impact would be less than significant.

Mitigation Measures

None required.

Cumulative Impact NO-8

Under a cumulative scenario, new development under the proposed Plan, together with regional growth, would not result in a 5-dBA permanent increase in ambient noise levels in the proposed Plan vicinity without the proposed Plan (i.e., the cumulative condition including the proposed Plan compared to the existing conditions) and a 3-dBA permanent increase is attributable to the proposed Plan (i.e., the cumulative condition including the proposed Plan compared to the cumulative baseline condition without the proposed Plan.). ***(Less than Significant)***

Following the City of Oakland's CEQA Thresholds of Significance Guidelines, the proposed Plan would have a significant effect on the environment if it would (1) generate noise resulting in a 5-dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project, or (2) if the cumulative increase results in a 5-dBA permanent increase in ambient noise levels in the project vicinity, and a 3-dBA permanent increase is attributable to the proposed Plan. Part 1 of the threshold requires a comparison between "Existing Plus Project" and "Existing" scenarios. Part 2 requires comparisons between (a) "Cumulative Plus Project" and "Existing," and (b) "Cumulative Plus Project" and "Cumulative No Project" scenarios. Part 1 is discussed under Cumulative Impact NO-3.

The difference between cumulative future traffic at buildout of reasonably foreseeable maximum development ("Cumulative Plus Project") and existing traffic was considered to evaluate the permanent increase in ambient noise levels in the project vicinity under a cumulative scenario. The increase in traffic noise at Plan buildout of reasonably foreseeable maximum development, resulting from both proposed Station Area Plan-related development and regional growth, is projected to be less than 5 dBA at all but 10 of the 64 studied roadway segments, as discussed under Part 1 Analysis. These roadway segments are shown in bold in **Table 3.10-10**.

Table 3.10-10: Projected Traffic Noise in the Cumulative Scenario

				Cumulative noise level at 50 ft setback (Ldn)		
Street	*Segment*			*Existing Baseline - 2005*	*Cumulative Plus Project - 2035*	*Difference between Cumulative Plus Project and Existing (dB)*
North/South Roadways						
Broadway	south	of	11th	70	69	0
Broadway	11th St.	to	12th	70	70	0
Broadway	north	of	12th	70	70	0
Webster Street	south	of	8th	68	69	2
Webster Street	8th St.	to	9th	69	71	2
Webster Street	north	of	9th	70	71	2
Harrison Street	south	of	7th	71	72	1
Harrison Street	7th St.	to	8th	63	67	4
Harrison Street	north	of	8th	62	65	2
Jackson Street	south	of	5th	65	66	1
Jackson Street	5th St.	to	6th	65	67	1
Jackson Street	6th St.	to	7th	69	69	0
Jackson Street	7th St.	to	8th	66	69	2
Jackson Street	north	of	8th	66	69	3
Madison Street	**south**	**of**	**5th**	**57**	**63**	**6**
Madison Street	5th St.	to	6th	68	69	2
Madison Street	6th St.	to	7th	69	71	3
Madison Street	7th St.	to	8th	68	72	4
Madison Street	8th St.	to	9th	68	71	3
Madison Street	9th St.	to	10th	68	70	3
Madison Street	10th St.	to	11th	68	71	3
Madison Street	11th St.	to	12th	68	70	3
Madison Street	12th St.	to	13th	67	70	3
Madison Street	13th St.	to	14th	67	70	4
Madison Street	north	of	14th	67	71	4
Oak Street	south	of	5th	67	69	2
Oak Street	5th St.	to	6th	65	68	3
Oak Street	6th St.	to	7th	68	70	2
Oak Street	7th St.	to	8th	69	70	2
Oak Street	8th St.	to	9th	68	70	2
Oak Street	9th St.	to	10th	68	70	1

Table 3.10-10: Projected Traffic Noise in the Cumulative Scenario

				Cumulative noise level at 50 ft setback (Ldn)		
Street	*Segment*			*Existing Baseline - 2005*	*Cumulative Plus Project - 2035*	*Difference between Cumulative Plus Project and Existing (dB)*
Oak Street	10th St.	to	12th	68	70	1
Oak Street	12th St.	to	13th	67	69	2
Oak Street	13th St.	to	14th	67	68	1
Oak Street	north	of	14th	67	71	4
East/West Roadways						
Highway 880				84	85	1
5th Street	West	of	Jackson	67	70	3
5th Street	Jackson	to	Madison	63	66	3
5th Street	Madison	to	Oak	70	71	2
5th Street	East	of	Oak	69	71	1
6th Street	**Jackson**	**to**	**Madison**	**65**	**70**	**5**
6th Street	Madison	to	Oak	61	64	4
7th Street	West	of	Harrison	65	69	4
7th Street	Harrison	to	Jackson	68	69	1
7th Street	Jackson	to	Madison	68	71	3
7th Street	Madison	to	Oak	68	72	4
7th Street	**East**	**of**	**Oak**	**66**	**71**	**5**
8th Street	**West**	**of**	**Webster**	**66**	**71**	**5**
8th Street	**Webster**	**to**	**Harrison**	**64**	**68**	**5**
8th Street	**Harrison**	**to**	**Jackson**	**64**	**68**	**5**
8th Street	**Jackson**	**to**	**Madison**	**64**	**69**	**5**
8th Street	**Madison**	**to**	**Oak**	**66**	**72**	**5**
8th Street	**Oak**	**to**	**Fallon**	**61**	**67**	**6**
East 8th Street	Fallon	to	5th Ave.	69	73	4
11th Street	West	of	Madison	67	69	2
11th Street	East	of	Madison	65	66	0
12th Street	West	of	Madison	67	70	3
12th Street	Madison	to	Oak	67	69	2
12th Street	Oak	to	Lake Merritt	66	68	2
14th Street	West	of	Madison	66	69	3
14th Street	Madison	to	Oak	67	71	4

Table 3.10-10: Projected Traffic Noise in the Cumulative Scenario

				Cumulative noise level at 50 ft setback (Ldn)		
Street	*Segment*			*Existing Baseline - 2005*	*Cumulative Plus Project - 2035*	*Difference between Cumulative Plus Project and Existing (dB)*
Lake Merritt Blvd.	**14th**	**to**	**12th**	**67**	**72**	**5**
Lake Merritt Blvd.	12th	to	International	71	74	4
Lake Merritt Blvd.	East	of	International	69	72	3

Note: Numbers are rounded to nearest whole number.

Source: Charles Salter Associates, 2012, Kimley-Horn and Associates, 2012; Dyett & Bhatia, 2013.

To estimate the proposed Plan's contribution to this cumulative increase in traffic noise, the proportion of additional vehicle trips attributable to the Plan is compared to the total growth in vehicle trips. Since the significance threshold concerns only locations where cumulative noise would increase by more than 5 dB, only those 10 roadway segments are analyzed further.

Table 3.10-11 shows future trips at the 10 study segments where noise is projected to increase substantially. Each of the intersections feeding these segments is projected to have a greater than 180-percent increase in trips by 2035, resulting in noise increases of 5 dB or more. Development from the proposed Plan, however, is only projected to account for 17 percent of these trips at the most, and below 5 percent of the trip growth at five of the 10 roadway segments. When just these trips are evaluated for noise impacts, the Plan would be responsible for less than 1 dB of the noise increase in each case. Therefore, the impact would be less than significant. The "Cumulative Plus Project" and the "Cumulative No Project" scenarios cannot be compared in a table with regard to noise from building operations because the specific building sites under the "Cumulative No Project" scenario are not known. As in the Part 1 analysis, it is recognized that noise emissions from equipment will be subject to the limitations of the Noise Ordinance as well as the Building Code, and that equipment will typically be placed at a considerable distance from the ground. Thus, noise will be substantially attenuated at sidewalk level in most locations, and so less than significant at the scale of the Planning Area.

Noise levels, and the proposed Plan's contribution to those levels, at the interim 2020 year would be less than in 2035, and so the same significance finding would also apply in 2020.

Mitigation Measures

None required.

Table 3.10-11: Plan Contribution to Cumulative Traffic Noise

		Peak Hour Trips (AM and PM)					*Estimated Change in Traffic Noise*	
Street	*Segment*	*Existing*	*Cumulative No Project*	*Cumulative Plus Project*	*Difference between Cumulative Plus Project and Existing Trips*	*Difference between Cumulative Plus Project and Cumulative Without Project Trips*	*Difference between Cumulative Plus Project and Existing (dB)[1]*	*Difference between Cumulative Plus Project and Cumulative No Project (dB)[2]*
Madison Street	South of 5th	215	816	816	601	--	6	<1
6th Street	Jackson to Madison	798	2,092	2,328	1,530	236	5	<1
7th Street	East of Oak	1,123	3,553	4,068	2,945	515	5	<1
8th Street	West of Webster	1,476	4,750	4,789	3,313	39	5	<1
8th Street	Webster to Harrison	1,580	4,838	4,914	3,334	76	5	<1
8th Street	Harrison to Jackson	1,186	3,284	3,343	2,157	59	5	<1
8th Street	Jackson to Madison	1,074	3,207	3,375	2,301	168	5	<1
8th Street	Madison to Oak	1,173	4,101	4,480	3,307	379	5	<1
8th Street	Oak to Fallon	1,207	3,986	4,299	3,092	313	6	<1
Lake Merritt Blvd.	14th to 12th	1,756	6,342	6,367	4,611	25	5	<1

Notes:

1 The difference between Cumulative Plus Project and Existing noise is considered significant if the increase is greater than 5 dBA.

2 The proposed Plan's contribution would be cumulatively considerable if it resulted in a greater than 3-dBA permanent increase as a result of the project, measured as the difference between "Cumulative Plus Project" and "Cumulative No Project" condition

Source: Charles Salter Associates, 2012,Dyett & Bhatia, 2013.

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3.11 Biological Resources

This section provides an overview of the existing biological resources in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts on biological resources that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

The Planning Area is located within an urbanized area of Oakland. With the exception of areas adjacent to Lake Merritt, Lake Merritt Channel and the Oakland Estuary, the area is generally paved or developed with buildings. Areas that include diverse vegetation and offer open water habitat for a variety of wildlife, including water birds, fish, and mammals are limited to Lake Merritt, Lake Merritt Channel, and the Oakland Estuary. In 1869, the Mayor of Oakland declared Lake Merritt as a wildlife refuge.

Habitat Types and Vegetation

Urban and Landscape Habitat

The two main habitat types found within the Planning Area are urban and landscape, with open water habitat in Lake Merritt Channel. Urban, developed land provides virtually no habitat for plants other than weedy plants or plants used for landscaping. Wildlife species using urban land must be able to tolerate the presence of humans and their activities and are typically generalists, capable of utilizing the limited food sources available. There are certain exceptions, including red-tailed hawks *(Buteo jamaicensis)*, Cooper's hawks *(Accipiter cooperi)* and peregrine falcons *(Falco peregrinus anatum*).

Vegetation in the Planning Area consists almost entirely of species used in landscaped areas of parks and other public areas and to a limited extent as part of private development. Common tree species include coast redwood (*Sequoia sempervirens*), London planetree (*Platanus acerifolia*), Australian tea tree (*Leptospermum laevigatum*), southern magnolia (*Magnolia grandiflora*), deodar cedar (*Cedrus deodara*), Monterey pine (*Pinus radiata*), and eucalyptus (*Eucalyptus* sp.). Mature coast live oaks (*Quercus agrifolia*), a native species, form a substantial portion of the tree canopy at Lakeside Park. Turf grass is also widely used for lawns in the Planning Area's regional and linear parks. Several dense patches of blackberry (*Rubus* sp.) and pampas grass (*Cortaderia selloana*) are present along the shoreline of the Lake Merritt Channel south of 12th Street. Landscaped areas and trees can provide cover, foraging, and nesting habitat for a variety of bird species, especially those that are tolerant of disturbance and human presence.

Wetlands and Aquatic Habitat

Lake Merritt and Lake Merritt Channel provide aquatic habitat, and limited wetland areas exist along the Channel. Lake Merritt receives tidal flows through the Channel from the Estuary, and also receives drainage from the urban storm drain system. The saline content of the water varies throughout the year depending on the volume of fresh water that enters the lake.

The open waters of Lake Merritt support primarily marine fish species common to the San Francisco Estuary.[1] The lake also serves as the spawning and hatching grounds for various aquatic life that provides a major food source for the fish and bird species that use the lake. Fish species documented as occurring within the Glen Echo Creek watershed, which includes Lake Merritt, are goldfish *(Carassius auratus)*, western mosquitofish *(Gambusia affinis)*, and three-spine stickleback *(Gasterosteus aculeatus)*. There is the potential for Chinook salmon *(Oncorhynchus tshawytscha)* in the watershed but presence is not confirmed.[2] Lake Merritt Channel has the potential to support many of the same species that the lake supports and provides a vital linkage for these aquatic species between the Lake and Estuary.

Lake Merritt, Lake Merritt Channel, and adjacent park land also provide habitat for a diversity of bird species. Aside from those whose habitat is exclusively in the Lake itself, water birds that forage in the lake include eared and pied-billed grebes *(Podiceps nigricollis, Podilymbus podiceps)*, Brown pelicans *(Pelecanus occidentalis californicus)*, and double-crested cormorants *(Phalacrocorax auritus)*. Duck species including bufflehead *(Bucephala albeola)* and scaup *(Aythya marila, A. affinis)* also use the aquatic habitat provided by the Lake and Channel.[3]

Although the majority of the Lake Merritt shoreline is comprised of man-made concrete retaining walls, riprap, or cobbled banks, a few small patches of cordgrass (*Spartina sp.*) occur in shallow areas with a mud substrate, particularly along the Lake Merritt Channel between 10th and 7th Streets. Small amounts of transitional marsh species such as saltgrass (*Distichlis spicata*) and marsh gumplant (*Grindelia stricta*) often grow between such patches and the adjacent managed turf of surrounding parklands.[4] A very small portion of Lake Merritt Channel and its edges is classified as estuarine and marine wetland by the US Fish and Wildlife Service's National Wetlands Inventory, as shown on **Figure 3.14-1** in the Water Quality and Hydrology chapter. Other sections of the Channel and Lake would be considered "other waters" under the Clean Water Act.

Special Status Species

A number of "special status species" are known to occur or have the potential to occur in the Planning Area. Under the California Environmental Quality Act (CEQA), special status species include species protected pursuant to federal and/or State of California laws; candidates for listing under federal or state

[1] ESA, *Proposed Amendments to the Central District Urban Renewal Plan Draft EIR,* 2011, referring to Pham, G.N., *Monitoring the water quality of Lake Merritt, Oakland, CA.: A study on species abundance in compliance with the water quality index,* 2001.

[2] ESA, *Proposed Amendments to the Central District Urban Renewal Plan Draft EIR,* 2011, referring to Leidy, R.A., *Ecology, Assemblage Structure, Distribution, and Status of Fishes in Streams Tributary to the San Francisco Estuary, California, San Francisco Estuary Institute Contribution No. 540,* April, 2007.

[3] ESA, 2011.

[4] LSA Associates, *Measure DD Implementation Project EIR,* 2007.

laws; species that have been designated Species of Special Concern by California Department of Fish and Game (CDFG); and plants listed as rare or endangered on List 1 or 2 by the California Native Plant Society (CNPS).

Table 3.11-1 summarizes the status and potential for occurrence of special status species in the Planning Area, and includes the following:

- All species listed in the CNDDB with potential habitat in the Planning Area;
- All species listed in Table 4.3-1 the Proposed Amendments to the Central District Urban Renewal Plan EIR with potential to occur in that Planning Area; and
- All species listed in Table IV.F-1 in the Measure DD Implementation Project EIR with potential to occur in habitat that may be present in the Lake Merritt Station Area Planning Area.

Species for which the Planning Area does not provide suitable habitat or are out of their known range are not further considered. Species with the potential to occur in the Planning Area are discussed below by type.

Twelve special status species have been identified as having a moderate or high potential for occurrence in the Planning Area, or are known to occur in the Planning Area, including eight bird species and four mammals (all bats).

- Two species—California brown pelican and American peregrine falcon—are classified as de-listed from the federal and State Endangered Species lists and are California Fully Protected species.
- Four species—Alameda song sparrow, Barrow's goldeneye, Pallid bat, and Big free-tailed bat—are on the California Department of Fish and Game's (CDFG) list of California Species of Special Concern.
- Three species—Cooper's hawk, Red-shouldered hawk, and Red-tailed hawk—are protected by Section 3503.5 of the CDFG code for nesting species of hawks and owls.
- Two species—Hoary bat and Silver-haired bat—are on the Western Bat Working Group (WBWG) Medium priority list, warranting further evaluation, research, and conservation.
- One species, Double-crested cormorant, was previously a Species of Special Concern, and is now on the CDFG watch list of "Taxa to Watch."

Nine additional species are considered to have a low potential for occurrence in or adjacent to the Planning Area. These include six species of fish: the federally-Endangered tidewater goby, four species of salmonoid fish that are either federally Endangered or Threatened, and one that is a California Species of Special Concern. Two bird species—Northern harrier and Salt marsh common yellowthroat—are California Species of Special Concern, and have a low potential for occurrence. One mammal, *Mimic tryonia* or California brackishwater snail, is presumed to be extirpated from Lake Merritt but is classified as having a low potential to occur.

These special status species are presented by type in the paragraphs that follow and in **Table 3.11-1**.

Plants

Of the six special-status plant species identified by the CNDDB for the Planning Area, only one is identified by CNDDB as "presumed extant," meaning it is believed to exist in or near the area. The other five are believed to be "extirpated" or "possibly extirpated" from the area, typically due to loss of the native habitats on which these species depend.[5] The EIR completed in 2011 for the Proposed Amendments to the Central District Urban Renewal Area, which encompasses most of the Lake Merritt Station Area Planning Area, concluded that no special-status plant species are expected to occur. The 2007 EIR for the Measure DD Implementation Project also does not identify any plant species with a potential to occur in habitats provided in the Planning Area. Thus while Bent-flowered fiddleneck is "presumed extant" according to the CNDDB, it is found to have no suitable habitat in the Planning Area, and thus no potential for occurrence.

Animals

The CNDDB identifies three animal species documented in or adjacent to the Planning Area. Two of these are presumed extant. The tidewater goby *(Eucyclogobius newberryi)* is a Federally Endangered fish species endemic to coastal lagoons and estuaries in California. While it was previously thought to have been extirpated from Lake Merritt due to water quality degradation, an increase was found in 2010. It is still considered to have a low potential to occur in the Planning Area. Hoary bat *(Lasiurus cinereus)* is also presumed extant; according to the Central District EIR, there is medium to high potential for the Hoary bat to occur given its habitat preferences. While this species is not legally protected it is identified on the Western Bat Working Group "Medium Priority" list of species that merit further evaluation and conservation. The third animal identified by CNDDB, California brackishwater snail *(Tryonia imitator)* is believed to have been extirpated but is identified as having a low potential to occur in the 2011 EIR for the Proposed Amendments to the Central District Urban Renewal Area.

Species That Have Been Observed

Five special status species, all birds, have been observed at or near Lake Merritt and/or Lake Merritt Channel. These are identified as "present" in **Table 3.11-1** and summarized as follows:[6, 7]

California brown pelicans *(Pelecanus occidentalis Californicus)* breed on the Channel Islands off the coast of southern California; all individuals observed in San Francisco Bay (including at Lake Merritt) are non-breeding or immature birds. Brown pelicans occur at Lake Merritt as uncommon but regularly occurring fall and winter (September through March) visitors. The California brown pelican has been de-listed from State and federal Endangered species lists based on a review of data indicating the species is no longer in danger of extinction. It is identified as a California Fully Protected Species by the California Department of Fish and Game.

American peregrine falcons *(Falco peregrines anatum)* have no known nests in the vicinity of Lake Merritt, but have been sighted sporadically over the last few years perching on and hunting from the top of several tall buildings adjacent to the lake. No known nesting sites are documented in the area, but the

[5] California Natural Diversity Database (CNDDB) RareFind website, http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp, accessed August 2012.

[6] LSA Associates, 2007.

[7] ESA, 2011.

species has been observed perching and roosting on several buildings including Kaiser Auditorium, Oakland City Hall, and the State office building.[8] The American peregrine falcon is also recently de-listed from the federal and State Endangered species lists, but is still identified as a Fully Protected Species.

Barrow's goldeneye *(Bucephala islandica)* is a California Species of Special Concern with protection of its nesting habitat of primary concern. This species is regularly seen, albeit in small numbers, at Lake Merritt and the Lake Merritt Channel during the late fall and winter. The Barrow's goldeneye is a California Species of Special Concern.

Alameda song sparrow *(Melospiza melodia pusillula)* is endemic to the tidal marshes surrounding San Francisco and San Pablo Bays, occurring primarily in tidal salt marshes but may also nest or forage in other shoreline habitats such as seasonal wetlands, intertidal mudflats, and adjacent uplands. A few individuals have been observed in the dense vegetation that borders portions of the Lake Merritt Channel which represents marginal nesting habitat for this species. The Alameda song sparrow is a California Species of Special Concern.

Double-crested cormorants *(Phalacrocorax auritus)* have a known nesting colony on the islands at the northern end of Lake Merritt. This species is known to forage year-round at Lake Merritt and is one of the more common waterbird species there, particularly at its northern end. The double-crested cormorant is on the California Department of Fish and Game's Watch List.

Species with a Moderate or High Potential to Occur

An additional seven special status species are identified as having a moderate to high potential to occur in the Planning Area due to the presence of suitable habitat and/or known presence in the vicinity. Three of these species are raptors and four are bats, as summarized below, beginning with the raptors.

Cooper's hawk *(Accipiter cooperi)* is protected under section 3503.5 of CDFG code (nesting Falconiformes). Cooper's hawk ranges over most of North America and may be seen throughout California, most commonly as a winter migrant. Cooper's hawk forages in open woodlands and wooded margins and nests in tall trees, often in riparian areas.[9,10] Nesting pairs have declined throughout the lower-elevation, more populated parts of the state but were documented in Lakeside Park in 2003, according to the CNDDB. This species may forage or nest in Peralta Park or other parks with dense trees, and are considered to have a high potential for occurrence.

Red-shouldered hawks *(Buteo lineatus)* are protected under section 3503.5 of CDFG code (nesting Falconiformes). They are relatively common in both rural and urban situations and can be found in residential neighborhoods and along riparian corridors or other water bodies. Large trees may provide potential nesting habitat for red-shouldered hawks, which are considered to have a high potential for occurrence.

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[8] ESA, 2011, referring to Nevill, G., Saturday in Oakland, Falcon Hunting (07-14-07), annotated photographs, accessed October 28, 2010, and Lowe, Martha, Senior Watershed Ecologist, ESA, personal observation, peregrine falcons observed in downtown Oakland, July 27, 2010.

[9] ESA, 2011, referring to Ehrlich, P.R., D.S. Dobkin, and O. Wheye, *The Birder's Handbook: A Field Guide to the Natural History of North American Birds,* Simon and Schuster, New York, NY, 1988.

[10] ESA Associates, 2011, referring to Sibley, D.A., *The Sibley Guide to Birds,* Alfred A. Knopf, Inc., New York, 2000.

Red-tailed hawks *(Buteo jamaicensis)* are protected under section 3503.5 of CDFG code (nesting Falconiformes). They are commonly found in woodlands and open country with scattered trees. Red-tailed hawks nest in a variety of trees in urban, woodland, and agricultural habitats. Large trees located within parks such as those along Lake Merritt Channel potentially provide suitable nesting habitat, and the species is considered to have a high potential to occur in the Planning Area.

Pallid bat *(Antrozous pallidus)* is identified as a Species of Special Concern by the California Department of Fish and Game. Pallid bats may roost alone or in groups in trees in cavities or under bark and structures such as bridges and buildings. Pallid bats forage over open areas and are opportunistic feeders on a wide variety of insects. The species is most abundant in arid lands, including deserts and canyonlands, shrub-steppe grasslands, and higher elevation coniferous forests, and is only likely to occur within the Planning Area on a transient basis during spring and summer migrations, and are considered to have a moderate to high potential to occur.[11]

Big free-tailed bat *(Nyctinomops macrotis)*, also a Species of Special Concern, is found in a variety of habitats including desert shrub, woodlands, and evergreen forests. It mostly roosts in cliff crevices, but has been documented in buildings, caves, and tree cavities.[12] This species is considered to have a moderate to high potential to occur during seasonal migrations.

Hoary bat *(Lasiurus cinereus),* the most widespread of all North American bats, is listed on the Western Bat Working Group's Medium Priority list. Hoary bats are solitary and roost primarily in foliage of both coniferous and deciduous trees, often at the edge of a clearing. The species is highly migratory but neither wintering sites nor migratory routes are well documented.[13] The species is considered to have a moderate to high potential to occur in the Planning Area.

Silver-haired bat *(Lasionycteris noctivagans)* occurs throughout most of North America and is primarily associated with conifer and mixed conifer/hardwood forests. They roost almost exclusively in cavities and under the bark of tree, and are sometimes found in structures.[14] This species would most likely be found in the Planning Area during winter and seasonal migrations, and are considered to have a moderate to high potential to occur.

These four bat species may utilize trees or abandoned buildings for roosting and turfgrass for foraging in any of the parks within the Planning Area during migratory periods but are not expected to breed and reproduce there.[15]

Species with a Low Potential to Occur in the Planning Area

Other federally- and/or State-listed animal species with a low potential to occur in the Planning Area include five anadromous fish populations, two bird species, and one invertebrate, as well as the tidewater

[11] ESA, 2011, referring to Western Bat Working Group (WBWG), *Species account for pallid bat, silver-haired bat, hoary bat, and big free-tailed bat*, 2005, accessed at http://wbwg.org/speciesinfo/species_accounts/species_accounts.html.

[12] ESA, 2011, referring to WBWG, 2005.

[13] ESA, 2011, referring to WBWG, 2005.

[14] ESA, 2011, referring to WBWG, 2005.

[15] ESA, 2011, referring to WBWG, 2005.

goby discussed above. None of the federally-listed anadromous fish species—those that travel from ocean to freshwater streams to spawn—are expected to occur in Lake Merritt or the Lake Merritt Channel due to the lack of gravel beds, riparian shading, well-oxygenated water, as well as the 7th Street pump station which acts as a barrier to fish passage.[16]

- Tidewater goby (*Eucyclogobius newberryi*)
- Chinook salmon (Sacramento River winter-run ESU) (*Oncorhynchus tshawytscha*)
- Chinook salmon (Central Valley spring-run ESU) (*Oncorhynchus tshawytscha*)
- Chinook salmon (Central Valley fall/late fall run ESU) (*Oncorhynchus tshawytscha*)
- Steelhead (Central California Coast ESU) (*Oncorynchus mykiss*)
- Coho salmon (Central California ESU) (*Oncorhynchus kisutch*)
- Northern harrier (*Circus cyaneus*)
- Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*)
- Mimic tryonia (California brackishwater snail) *(Tryonia imitator)*

[16] LSA Associates, 2007.

Table 3.11-1: Special Status Species with Potential to Occur in the Planning Area

Species	*Status*	*Habitat*	*Potential for Occurrence*
Plants			
Bent-flowered fiddleneck *(Amsinckia lunaris)*	1B	Woodland and grassland	None: no suitable habitat.
Kellogg's horkelia *(Horkelia cuneata var. sericea)*	1B	Coniferous forest, coastal shrub, chaparral	None: no suitable habitat; possibly extirpated.
Round-leaved filaree *(California macrophylla)*	1B	Clay soils in woodland and grassland	None: no suitable habitat; possibly extirpated.
San Francisco Bay spineflower *(Chorizanthe cuspidata var. cuspidata)*	1B	Sandy soils in coastal scrub, dunes, and prairie	None: no suitable habitat; probably extirpated.
San Joaquin spearscale *(Atriplex joaquinana)*	1B	Seasonal alkali wetlands or aalkali sink scrub	None: no suitable habitat; possibly extirpated.
Choris' popcorn-flower *(Plagiobothrys chorisianus var. chorisianus)*	1B	Chaparral, coastal scrub, coastal prairie	None: thought to be extirpated from East Bay (CNDDB).
Fish			
Tidewater goby (*Eucyclogobius newberryi*)	FE, CSC	Shallow waters of bays and estuaries.	Low: reported as present in Lake Merritt in late 1990s (CNNDB, 2010). Thought to be extirpated because of water quality degradation (City of Oakland, 2006). 2010 shows an increase in this species.
Chinook salmon (Sacramento River winter-run ESU1) (*Oncorhynchus tshawytscha*)	FE, CE	Spawns and rears in Sacramento River and tributaries where gravelly substrate and shaded riparian habitat occurs.	Low: migrates through San Francisco Estuary and individuals may occasionally stray into the Oakland Inner Harbor and Lake Merritt. However, no suitable breeding habitat remains in the area.
Chinook salmon (Central Valley spring-run ESU) (*Oncorhynchus tshawytscha*)	FT, CT	Spawns and rears in Sacramento River and tributaries where gravelly substrate and shaded riparian habitat occurs.	Low: migrates through San Francisco Estuary and individuals may occasionally stray into the Oakland Inner Harbor and Lake Merritt. However, no suitable breeding habitat remains in the area.

Table 3.11-1: Special Status Species with Potential to Occur in the Planning Area

Species	*Status*	*Habitat*	*Potential for Occurrence*
Chinook salmon (Central Valley fall/late fall run ESU) (*Oncorhynchus tshawytscha*)	FSC, CSC	Spawns and rears in Sacramento River and tributaries where gravelly substrate and shaded riparian habitat occurs.	Low: migrates through San Francisco Estuary and individuals may occasionally stray into the Oakland Inner Harbor and Lake Merritt. However, no suitable breeding habitat remains in the area.
Steelhead (Central California Coast ESU) (*Oncorynchus mykiss*)	FT, CSC	Spawns and rears in coastal streams between the Russian River and Aptos Creek, as well as drainages tributary to San Francisco Bay, where gravelly substrate and shaded riparian habitat occurs.	Low: migrates through San Francisco Estuary and individuals may occasionally stray into the Oakland Inner Harbor and Lake Merritt. However, no suitable breeding habitat remains in the area.
Coho salmon (Central California ESU) (*Oncorhynchus kisutch*)	FE, CE	Occurs between central California and Alaska. Spawns in small streams with silt-free gravel substrates and cool shaded water.	Low: San Francisco Bay is not included in this species' evolutionarily significant unit (ESU). No suitable habitat is present.
Birds			
California brown pelican (*Pelecanus occidentalis Californicus*)	Delisted FE, Delisted CE, CFP	Nests on islands, seeks cover on islands, mudflats, beaches, wharves.	Present: Known to forage and roost on Lake Merritt.
American peregrine falcon (*Falco peregrinus anatum*)	Delisted FE, Delisted CE, CFP	Nests on ledges on cliffs, bridges, and tall buildings.	Present: This species has been observed foraging and roosting at multiple sites in downtown Oakland and observed regularly at Lake Merritt.
Alameda song sparrow (*Melospiza melodia pusillula*)	CSC	Tidal salt marshes dominated by pickleweed; nests primarily in pickleweed (Salicornia sp.) and marsh gumplant (*Grindelia stricta*).	Present: observed at Lake Merritt Channel; marginal nesting habitat along Channel.
Barrow's goldeneye (nesting) (*Bucephala islandica*)	CSC	Lagoons, brackish lakes, and bays of central-northern California.	Present: regularly observed at Lake Merritt and Lake Merritt Channel in late fall/early winter.
Double-crested cormorant (rookery) (*Phalacrocorax auritus*)	WL	Nests along coast on isolated islands or in trees along lake margins.	Present: Known to forage and roost at Lake Merritt. Suitable roosting and nesting habitat is present within trees adjacent to Lake Merritt.

Table 3.11-1: Special Status Species with Potential to Occur in the Planning Area

Species	*Status*	*Habitat*	*Potential for Occurrence*
Cooper's hawk (nesting) (*Accipiter cooperi*)	3503.5	Commonly nests in conifers and riparian woodland but also known to nest in large trees in urban areas throughout the East Bay, especially near riparian corridors.	High: Known to nest within Lakeside Park (CDFG, 2010). May forage or nest within the Planning Area.
Red-shouldered hawk (*Buteo lineatus*)	3503.5	Commonly nests in riparian corridors but becoming increasingly common in urban areas throughout the East Bay, nesting in large trees.	High: Fairly common locally in urban areas. May nest within wooded areas of Peralta Park or other parks in the Planning Area.
Red-tailed hawk (*Buteo jamaicensis*)	3503.5	Nests in large oaks and conifers. The Bay Area's most common urban raptor.	High: Known to occur in downtown Oakland. May nest within tall trees in the various parks within the Planning Area.
Northern harrier (*Circus cyaneus*)	CSC	Nests on ground primarily in emergent vegetation, wet meadows, or near rivers and lakes, but may nest in grasslands away from water.	Low: May occasionally forage within the Planning Area but no suitable nesting habitat is present within the Planning Area.
Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*)	CSC	Salt, brackish, and freshwater marshes and riparian woodlands; nests on or near ground in low vegetation.	Low: only small patches of marginal habitat present; unlikely to nest in Planning Area.
Mammals			
Hoary bat (*Lasiurus cinereus*)	WBWG	Prefers open habitats or habitat mosaics, with trees for cover and open areas or habitat edges for feeding. Prefers to roost in dense foliage of medium to large trees.	Moderate to High: Suitable roosting habitat occurs in parks in the Planning Area and foraging habitat is present over parks and Lake Merritt. Species not expected to breed in Planning Area.
Pallid bat (*Antrozous pallidus*)	FSC, CSC	Occurs in various habitats including grasslands, scrubs, woodlands, mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting.	Moderate to High: Suitable roosting habitat occurs in parks in the Planning Area and foraging habitat is present over parks and Lake Merritt. Species not expected to breed in Planning Area.
Silver-haired bat (*Lasionycteris noctivagans*)	FSC, WBWG	Roost almost exclusively in trees—in natural hollows and bird excavated cavities or under loose bark of large diameter snags.	Moderate to High: Suitable roosting habitat occurs in parks in the Planning Area and foraging habitat is present over parks and Lake Merritt. Species not expected to breed in Planning Area.

Table 3.11-1: Special Status Species with Potential to Occur in the Planning Area

Species	*Status*	*Habitat*	*Potential for Occurrence*
Big free-tailed bat (*Nyctinomops macrotis*)	CSC	Found in habitats such as desert shrub, woodlands, and evergreen forests. Mostly roosts in cliff crevices, but documented in buildings, caves, and tree cavities.	Moderate to High: Suitable roosting habitat occurs in parks in the Planning Area and foraging habitat is present over parks and Lake Merritt. Species not expected to breed in Planning Area.
Invertebrates			
Mimic tryonia (California brackishwater snail) (*Tryonia imitator*)	FSC	Inhabits permanently submerged areas in coastal lagoons, estuaries, and salt marshes, from Sonoma County south to San Diego County.	Low: Historical collection from vicinity of Lake Merritt (collection date unknown). This species is presumed extirpated from Lake Merritt.

Notes:

ESU = Evolutionarily Significant Unit. National Marine Fisheries Service (NMFS) considers an ESU a “species” under the Endangered Species Act.

Status Codes:

FE = Federally listed as endangered

FT = Federally listed as threatened

FSC = Former Federal Species of Special Concern. USFWS stopped maintaining this list in 2006, but these species are still considered to be at-risk by other federal and state agencies, as well as various organizations with recognized expertise such as the Audubon Society.

SE = State-listed as endangered

ST = State-listed as threatened

SR = State-listed as rare

CSC = California Species of Special Concern

CFP = CDFG Fully Protected Species

1B = California Native Plant Society (CNPS) List 1B: species considered rare or endangered in California and elsewhere

3503-5 = Protection for nesting species of Faconiformes (hawks) and Strigiformes (owls) under section 3503.5 of CDFG code.

WL = CDFG watch list for "Taxa to Watch"

WBWG = Western Bat Working Group (WBWG) "Medium Priority" list. Indicates a level of concern that should warrant evaluation, research, and conservation actions.

Delisted = Species that were formally federally or state listed as endangered species but have been delisted.

Source: CDFG California Natural Diversity Database, 2012; CNPS, 2012; City of Oakland, Proposed Amendments to the Central District EIR, 2011; City of Oakland, Measure DD Implementation Project EIR, 2007; Dyett & Bhatia, 2012.

REGULATORY SETTING

Federal

Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS), which has jurisdiction over plants, wildlife, and most freshwater fish, and the National Marine Fisheries Service (NMFS), which has jurisdiction over anadromous[17] fish, marine fish, and mammals, oversee implementation of the federal Endangered Species Act. Section 7 of the Act mandates that all federal agencies consult with the USFWS and NMFS to ensure that federal agencies actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. A federal agency is required to consult with USFWS and NMFS if it determines a "may effect" situation will occur in association with the proposed Plan. The Endangered Species Act prohibits the "take" of any fish or wildlife species listed as threatened or endangered, including the destruction of habitat that could hinder species recovery.

Under Section 9 of the Endangered Species Act, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the removal, possession, damage or destruction of any endangered plant from federal land. Section 9 also prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in nonfederal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species, and species that are proposed or under petition for listing, receive no protection under Section 9 of the Act.

Section 10 of the Act requires the issuance of an "incidental take" permit before any public or private action may be taken that would potentially harm, harass, injure, kill, capture, collect, or otherwise hurt (i.e., take) any individual of an Endangered or Threatened species. The permit requires preparation and implementation of a habitat conservation plan that would offset the take of individuals that may occur, incidental to implementation of the proposed Plan by providing for the overall preservation of the affected species through specific mitigation measures.

Critical Habitat

The USFWS designates critical habitat for species listed under the federal Endangered Species Act. Critical habitat areas are occupied by the species, located within a specific geographic region determined to be critical for survival, and protected from destruction and adverse modification. The Federal Endangered Species Act allows the USFWS to designate critical habitat for threatened and endangered species. Seven federally listed species are found to have a low potential to occur in the Planning Area. The four endangered species of fish have designated critical habitat that includes portions of the San Francisco Bay or its tributaries. However, each of these species is considered to have low potential to occur in the Planning Area.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (16 USC, Section 703, Supplement I, 1989) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful.

[17] Anadromous fish live in the ocean mostly, and breed in fresh water.

Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. If a project site or Planning Area contains vegetation which supports nesting birds, the removal of that vegetation during the nesting season could result in a violation of the MBTA.

Clean Water Act

Waters of the United States and Wetlands

The term "waters of the United States," as defined in the Code of Federal Regulations (33 CFR Section 328.3[a]; 40 CFR Section 230.3[s]), refers to:

- All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
  - Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - Which are used or could be used for industrial purposes by industries in interstate commerce.
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (1) through (4);
- Territorial seas; and
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6).
- Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA (33 CFR 328.3[a][8]).

Wetlands are ecologically productive habitats that support a rich variety of both plant and animal life. The importance of wetlands has increased due to their value as recharge areas and filters for water supplies and to their widespread filling and destruction to enable urban and agricultural development. Examples of wetlands may include freshwater marsh, seasonal wetlands, and vernal pool complexes that are adjacent to waters of the United States. In a jurisdictional sense, there are two commonly used wetland definitions,

one adopted by the USEPA and U.S. Army Corps of Engineers (Corps) and a separate definition, originally developed by USFWS, which has been adopted by agencies in the State of California that have regulatory authority over wetlands. Both definitions are presented below.

Federal Wetlands

Under federal law, wetlands are a subset of "waters of the United States" and receive protection under Section 404 of the Clean Water Act (CWA). Wetlands are defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetland determination under the federal wetland definition adopted by the Corps requires the presence of three factors: (1) wetland hydrology; (2) plants adapted to wet conditions; and (3) soils that are routinely wet or flooded [33 C.F.R. § 328.3(b)]. In January 2001, the Supreme Court of the United States ruled that certain isolated wetlands do not fall under the jurisdiction of the CWA (Solid Waste Agency of Northwestern Cook County v. United States Army Corps of Engineers et al.).

Other Waters of the United States

"Other waters of the United States" refers to additional features that are regulated by the CWA but are not wetlands (33 CFR 328.4). To be considered jurisdictional, these features must exhibit a defined bed and bank and an ordinary high water mark. The term ordinary high water mark refers to a line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other means appropriate to the characteristics of the surrounding areas. Examples of other waters of the United States include rivers, creeks, ponds, and lakes.

U.S. Army Corps of Engineers and U.S. Environmental Protection Agency Regulations

The U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the CWA. Projects that would result in the placement of dredged or fill material into waters of the United States require a Section 404 permit from the Corps. Some classes of fill activities may be authorized under General or Nationwide permits if specific conditions are met. Nationwide permits do not authorize activities that are likely to jeopardize the existence of a threatened or endangered species (listed or proposed for listing under the federal Endangered Species Act). In addition to conditions outlined under each Nationwide Permit, project-specific conditions may be required by the Corps as part of the Section 404 permitting process. When a project's activities do not meet the conditions for a Nationwide Permit, an Individual Permit may be issued.

Section 401 of the CWA requires an applicant for a Corps permit to obtain state certification that the activity associated with the permit will comply with applicable state effluent limitations and water quality standards. In California, water quality certification, or a waiver, must be obtained from the Regional Water Quality Control Board (RWQCB) for both Individual and Nationwide Permits.

The federal government also supports a policy of minimizing "the destruction, loss, or degradation of wetlands." Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.

In recent years several Supreme Court cases have challenged the scope and extent of the Corps' jurisdiction over waters of the United States and have led to several reinterpretations of that authority. The most recent of these decisions are the case of Solid Waste Agency of Northern Cook County (SWANCC) v. the Army Corps of Engineers (January 9, 2001) and Rapanos v. United States (June, 2006). The SWANCC decision found that jurisdiction over non-navigable, isolated, intrastate waters could not be based solely on the use of such waters by migratory birds. The reasoning behind the SWANCC decision could be extended to suggest that waters need a demonstrable connection with a 'navigable water' to be protected under the CWA. The introduction of the term 'isolated' has led to the consideration of the relative connectivity between waters and wetlands as a jurisdictionally relevant factor. The more recent Rapanos case further questioned the definition of "waters of the United States" and the scope of federal regulatory jurisdiction over such waters but resulted in a split decision which did not provide definitive answers but expanded on the concept that a 'significant nexus' with traditional navigable waters was needed for certain waters to be considered jurisdictional.

On June 5, 2007, the EPA and the Corps released guidance on CWA jurisdiction in response to the Rapanos Supreme Court decisions, which can be used to support a finding of CWA coverage for a particular water body when either (a) there is a significant nexus between the stream or wetland in question and navigable waters in the traditional sense; or (b) a relatively permanent water body is hydrologically connected to traditional navigable waters and/or a wetland has a surface connection with that water. According to this guidance the Corps and the U.S. EPA will take jurisdiction over the following waters: (1) Traditional navigable waters, which are defined as all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) Wetlands adjacent to traditional navigable waters; including adjacent wetlands that do not have a continuous surface connection to traditional navigable waters; (3) Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); and (4) Wetlands adjacent to non-navigable tributaries as defined above; that have a continuous surface connection to such tributaries (e.g., they are not separated by uplands, a berm, dike, or similar feature).

The EPA and the Corps decide jurisdiction over the following waters based on a fact-specific analysis to determine if there is a significant nexus, as defined below, to a traditional navigable water: (a) Non-navigable tributaries that are not relatively permanent; (b) Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and (c) wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The EPA and the Corps generally do not assert jurisdiction over: (1) swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) or (2) ditches (including roadside ditches) excavated wholly in and draining only uplands that do not carry a relatively permanent flow of water.

The EPA and the Corps have defined the significant nexus standard as follows:

- A significant nexus analysis assesses the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters;

- Significant nexus analysis includes consideration of hydrologic and ecologic factors including: (a) volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary; (b) proximity to a traditional navigable water; (c) size of the watershed; (d) average annual rainfall; (e) average annual winter snow pack; (f) potential of tributaries to carry pollutants and flood waters to traditional navigable waters; (g) provision of aquatic habitat that supports a traditional navigable water; (h) potential of wetlands to trap and filter pollutants or store flood waters; and (i) maintenance of water quality in traditional navigable waters.

State

California Endangered Species Act

Under the California Endangered Species Act, the California Department of Fish and Game (CDFG) has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code 2070). CDFG also maintains a list of "candidate species," which are species formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. In addition, CDFG maintains lists of "species of special concern," which serve as "watch lists." Pursuant to the requirements of the California Endangered Species Act, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species could be present on the Planning Area and determine whether the proposed project could have a potentially significant impact on such species. In addition, CDFG encourages informal consultation on any proposed project that may impact a candidate species.

California Native Plant Protection Act

State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed CDFG to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare and to require permits for collecting, transporting, or selling such plants. The California Endangered Species Act expanded upon the original NPPA and enhanced legal protection for plants. The Act established threatened and endangered species categories, and grandfathered all rare animals—but not rare plants—into the act as threatened species. Thus, there are three listing categories for plants in California: rare, threatened, and endangered.

McAteer-Petris Act

The McAteer-Petris Act and Suisun Marsh Preservation Act were adopted to protect San Francisco Bay and Suisun Marsh as natural resources for the benefit of the public and to encourage development compatible with this protection. The San Francisco Bay Conservation and Development Commission (BCDC) was established to enforce this Act. The two primary goals of the BCDC are: (1) to prevent the unnecessary filling of San Francisco Bay; and (2) to increase public access to and along the Bay shoreline. BCDC approval is required for all projects within 100 feet of the Bay shoreline, as well as projects that propose any filling or dredging within Bay waters. BCDC jurisdiction is not mapped but defined statutorily. It includes the open waters, marshes, and mudflats of the Bay; land within 100 feet of the Bay's edge; portions of creeks, rivers, sloughs, and other tributaries of the Bay; and managed wetlands that have been diked off from the Bay.

Magnuson-Stevens Fishery Conservation and Management Act

All native San Francisco Bay fish species are protected under the Magnuson-Stevens Act. Amendments to this Act in 1996 require federal agencies to consult with the NMFS regarding any action or proposed action that may adversely affect Essential Fish Habitat (EFH) for federally managed fish species. The Magnuson-Stevens Act defines EFH as "those areas and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."

Marine Mammal Protection Act

All marine mammals (i.e., whales, dolphins, porpoises, seals, sea lions, and walruses) are protected by the Marine Mammal Protection Act (MMPA) of 1972. The MMPA prohibits, with certain exceptions, the take of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S. The MMPA is enforced by the NMFS.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to "projects" proposed to be undertaken or requiring approval by State or local government agencies. Projects are defined as having the potential to have physical impact on the environment. Under Section 15380 of CEQA, a species not included on any formal list "shall nevertheless be considered rare or endangered if the species can be shown by a local agency to meet the criteria" for listing. With sufficient documentation, a species could be shown to meet the definition of rare or endangered under CEQA and be considered a "de facto" rare or endangered species.

California Fish and Game Code

Fully Protected Species. CDFG Code sections 3511, 4700, 5050, and 5515 designate fully protected species and protection measures. Fully protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except when collecting these species is necessary for scientific research and relocation of bird species is necessary for livestock protection.

Protection of Nesting Birds. Nesting birds are protected under CDFG Code Section 3503, which makes it (1) unlawful to take, possess, or destroy the nests or eggs of any such bird of prey (i.e., species in the order Falconiformes and Strigiformes) except as otherwise provided by the code; and (2) protect the active nests of all other birds (except English sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*)). Disturbance that causes nest abandonment and/or reproductive failure is considered a take. No take permits are issued under these statutes.

Species of Special Concern. The CDFG designates species of special concern, which are species with limited distribution, diminishing habitat, and declining populations, or species that otherwise possess unusual scientific, recreational, or educational value. The Species of Special Concern list is intended to be a land-use management tool.

Special-Status Natural Communities

Special-status natural communities are identified as such by CDFG's Natural Heritage Division and include those that are naturally rare and those whose extent has been greatly diminished through changes in land use. The California Natural Diversity Database (CNDDB) tracks 135 such natural communities in the same way that it tracks occurrences of special-status species: information is maintained on each site in

terms of its location, extent, habitat quality, level of disturbance, and current protection measures. CDFG is mandated to seek the long-term perpetuation of the areas in which these communities occur. While there is no statewide law that requires protection of all special-status natural communities, CEQA requires consideration of the potential impacts of a project to biological resources of statewide or regional significance.

California Native Plant Protection Act (NPPA). CDFG Code sections 1900-1913 comprise the NPPA and seek to preserve, protect, and enhance rare or endangered California plants. The agency is responsible for establishing criteria to determine what native plants are rare or endangered, and for governing the take, possession, propagation or sale of such plants. The California Native Plant Society (CNPS) also identifies rare or endangered plants and lists them as 1A, 1B, 2, 3, and 4 species. Plants appearing on CNPS List 1A, 1B, or 2 meet CEQA significance criteria and CDFG sections 1901, 2062, and 2067 criteria as rare or endangered species.

California's Natural Communities Conservation and Planning Act (NCCPA). This act exists as a natural community conservation planning tool and was initiated to help declining species by conserving natural communities and by allowing complementary land uses. It is designed to identify and protect individual species that have already declined significantly mainly because the endangered species listing process is long and extensive and often highly controversial. The CDFG takes jurisdiction under CDFG Section 2800-2835.

California Wetland Definition

The CDFG and the California Coastal Commission (CCC) have adopted the USFWS Cowardin (1979) definition of wetlands. While the federal definition of wetlands requires three wetland identification parameters to be met, the Cowardin definition can be satisfied under some circumstances with the presence of only one parameter. Thus, identification of wetlands by State agencies may include areas that are permanently or periodically inundated or saturated and without wetland vegetation or soils, such as rocky shores, or areas that presume wetland hydrology based on the presence of at least one of the following: (a) a seasonal or perennial dominance by hydrophytes[18] or (b) the presence of hydric[19] soils. CDFG does not normally assert jurisdiction over wetlands unless they are subject to Streambed Alteration Agreements (CDFG Code Sections 1600–1616) or they support State-listed endangered species.

State regulation of activities in waters and wetlands resides primarily with CDFG and the State Water Resources Control Board (SWRCB). In addition, the Coastal Commission has review authority for wetland permits within its planning jurisdiction. CDFG provides comment on Corps permit actions under the Fish and Wildlife Coordination Act. CDFG is also authorized under the California Fish and Game Code, Sections 1600-1616, to enter into a Streambed Alteration Agreement with applicants and to develop mitigation measures when a proposed project would obstruct the flow or alter the bed, channel, or bank of a river or stream in which there is a fish or wildlife resource, including intermittent and ephemeral streams.

[18] A hydrophyte is, literally, a water loving plant, i.e., one that is adapted to growing in conditions where the soil lacks oxygen, at least periodically during the year, due to saturation with water.

[19] A hydric soil is one that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile.

The SWRCB, acting through the nine RWQCBs, must certify that a Corps permit action meets State water quality objectives (Section 401, Clean Water Act).

Local

City of Oakland General Plan

The City's General Plan contains policies in multiple elements that regulate biological resources. These include:

Open Space, Conservation and Recreation Element Policies

Policy CO-5.3: Control of Urban Runoff. Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina live-aboards; and (c) improve water quality in Lake Merritt to enhance the Lake's aesthetic, recreational, and ecological functions.

Policy CO-6.1: Creek Management. Protect Oakland's remaining natural creek segments by retaining creek vegetation, maintaining creek setbacks, and controlling bank erosion. Design future flood control projects to preserve the natural character of creeks and incorporate provisions for public access, including trails, where feasible. Strongly discourage projects which bury creeks or divert them into concrete channels.

Policy CO-6.4: Lake Management. Manage Oakland's lakes to take advantage of their recreational and aesthetic potential while conserving their ecological functions and resource value. Discourage new recreational users which impair the ability of the lakes to support fish and wildlife. Support improvements which enhance water circulation, water quality, and habitat value, provided they are cost-effective and are compatible with established recreational activities.

Policy CO-6.5: Protection of Bay and Estuary Waters. Protect the surface waters of the San Francisco Estuary system, including San Francisco Bay, San Leandro Bay, and the Oakland Estuary. Discourage shoreline activities which negatively impact marine life in the water and marshland areas.

Policy CO-7.1: Protection of Native Plant Communities. Protect native plant communities, especially oak woodlands, redwood forests, native perennial grasslands, and riparian woodlands, from the potential adverse impacts of development. Manage development in a way which prevents or mitigates adverse impacts to these communities.

Policy CO-7.2: Native Plant Restoration. Encourage efforts to restore native plant communities in areas where they have been compromised by development or invasive species, provided that such efforts do not increase an area's susceptibility to wildfire.

Policy CO-7.4: Tree Removal. Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.

Policy CO-8.1: Mitigation of Development Impacts. Work with federal, state, and regional agencies on an ongoing basis to determine mitigation measures for development which could potentially impact wetlands. Strongly discourage development with immitigable adverse impacts.

Policy CO-8.2: Wetland Park Activities. Limit recreational uses within wetland "parks" to activities that are consistent with the fragile environmental characteristics of the areas. These uses may include wildlife refuges, ecological study areas, and where appropriate, interpretive boardwalks and nature centers.

Policy CO-9.1: Habitat Protection. Protect rare, endangered, and threatened species by conserving and enhancing their habitat and requiring mitigation of potential adverse impacts when development occurs within habitat areas.

Policy CO-11.1: Protection from Urbanization. Protect wildlife from the hazards of urbanization, including loss of habitat and predation by domestic animals.

Policy CO-11.2: Migratory Corridors. Protect and enhance migratory corridors for wildlife. Where such corridors are privately owned, require new development to retain native habitat or take other measures which help sustain local wildlife populations and migratory patterns.

Policy OS-12.1: Street Tree Selection. Incorporate a broad and varied range of tree species which is reflected on a City-maintained list of approved trees. Street tree selection should respond to the general environmental conditions at the planting site, including climate and micro-climate, soil types, topography, existing tree planting, maintenance of adequate distance between street trees and other features, the character of existing development, and the size and context of the tree planting area.

Policy REC-2.3: Environmentally Sensitive Design. Protect sensitive natural areas within parks, including creeks and woodlands, and integrate them into park design. Require new recreational facilities to respect existing park character, be compatible with the natural environment, and achieve a high standard of design quality.

Safety Element Policies

Policy W3.2: The function, design and appearance, and supplementary characteristics of all uses, activities, and facilities should enhance, and should not detract from or damage the quality of, the overall natural and built environment along the waterfront.

Policy W3.3: Native plant communities, wildlife habitats, and sensitive habitats should be protected and enhanced.

The Oakland Estuary Plan

This plan contains the following policy relevant to biological resources:

Policy OAK-1.1: Encourage the Preservation and Enhancement of Wetland Areas. The waterfront should be improved in a manner that maintains and enhances the ecological value of the area in general and the Lake Merritt Channel in particular. In some locations, tidelands function as tidal wetlands, providing marsh habitat for fish, migratory waterfowl, and other animals. Improvements should be encouraged that restore wetland and marsh habitat. Wetlands should be protected by such treatments as setting back trails from the shoreline, installing suitable buffer planting to prevent disruption nesting and resting areas, seasonal routing of pedestrians to avoid sensitive habitats, etc. As improvements and projects are considered, the City and Port should work with interested groups and organizations to ensure appropriate treatments along the shoreline, particularly along the channel on the eastern bank between I-880 and Embarcadero.

City of Oakland Municipal Code

Protected Trees Ordinance

Title 12, Chapter 12.36 of the Oakland Municipal Code (OMC) requires that a permit be obtained prior to removing protected trees from either City or private property. Protected trees are defined as follows:

- Any coast live oak (*Quercus agrifolia*) larger than four inches diameter-at-breast height (dbh); and
- Any tree that is larger than nine inches dbh, except eucalyptus trees or Monterey pines.
- Monterey pines are protected only on city property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed.

The Ordinance establishes specific procedures for development-related tree removals, non-development-related tree removals, and removals of City-owned trees. Tree removal permits are to be granted if removal is determined necessary to insure public health and safety; avoid an unconstitutional regulatory taking of property; take "reasonable advantage" of views; pursue accepted, professional practices of forestry or landscape design; or implement vegetation management prescribed in the City's S-11 zone. The City may also require conditions of approval, including requirements that other trees be adequately protected during site grading and construction, and/or that replacement plantings be done to minimize erosion, loss of shade, visual screening or wildlife habitat.

Creek Protection, Storm Water Management and Discharge Control Ordinance

Title 13, Chapter 13.16 of the Oakland Municipal Code (OMC) is intended to protect and enhance water quality in the City's creeks, water bodies, and other wetlands pursuant to the Clean Water Act. Its requirements aim to eliminate non-storm water discharges to the municipal separate storm sewer; reduce pollutants in storm water discharges; preserve natural vegetation and wildlife along creeks and riparian corridors; and prevent activities that would cause significant erosion or flooding, destroy riparian areas or inhibit their restoration.

To protect water quality, the Ordinance prohibits non-storm water discharges to the municipal storm drainage system unless the discharge is separately regulated under an NPDES permit and is in full compliance with that permit. Pollutants that could enter the storm drainage system are to be eliminated to the greatest extent feasible.

The Ordinance protects natural waterways by requiring all owners of land through which a water course passes to ensure reasonable maintenance and to not remove healthy riparian vegetation. Any development on a creekside property, or within the public right-of-way fronting a creekside property, requires a creek protection permit from the Chief of Building Services. Four categories of permit are defined, based on the potential for work to impact the creek. Exterior development work beyond 100 feet of the centerline of a creek (Category II) requires submittal of a site plan. Exterior development work within 100 feet (Category III) requires a site plan as well as a creek protection plan that describes the best management practices that will be employed to assure construction activity will not adversely impact creek bank, riparian corridor or water quality. Finally, exterior development work within the 20-foot setback from the top of the creek (Category IV) requires a site plan, a creek protection plan, and a hydrology report. Category III and IV permits are discretionary actions subject to CEQA review.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-43. Tree Removal Permit on Creekside Properties[20]

Prior to issuance of a final inspection of the building permit

Prior to removal of any tree located on the project site which is identified as a creekside property, the project applicant must secure the applicable creek protection permit, and abide by the conditions of that permit.

SCA-44. Tree Removal During Breeding Season

Prior to issuance of a tree removal permit

To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of raptors shall not occur during the breeding season of March 15 and August 15. If tree removal must occur during the breeding season, all sites shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to start of work from March 15 through May 31, and within 30 days prior to the start of work from June 1 through August 15. The pre-removal surveys shall be submitted to the Planning and Zoning Division and the Tree Services Division of the Public Works Agency. If the survey indicates the potential presences of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the CDFG, and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

[20] These Development Standards apply to ALL projects that require a removal of any unprotected tree:

SCA-45. Tree Removal Permit[21]

Prior to issuance of a demolition, grading, or building permit

Prior to removal of any protected trees, per the Protected Tree Ordinance, located on the project site or in the public right-of-way adjacent to the project, the project applicant must secure a tree removal permit from the Tree Division of the Public Works Agency, and abide by the conditions of that permit.

SCA-46. Tree Replacement Plantings

Prior to issuance of a final inspection of the building permit

Replacement plantings shall be required for erosion control, groundwater replenishment, visual screening and wildlife habitat, and in order to prevent excessive loss of shade, in accordance with the following criteria:

a. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.

b. Replacement tree species shall consist of *Sequoia sempervirens* (Coast Redwood), *Quercus agrifolia* (Coast Live Oak), *Arbutus menziesii* (Madrone), *Aesculus californica* (California Buckeye) or *Umbellularia californica* (California Bay Laurel) or other tree species acceptable to the Tree Services Division.

c. Replacement trees shall be at least of twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.

d. Minimum planting areas must be available on site as follows:

   1. For *Sequoia sempervirens*, three hundred fifteen square feet per tree;

   2. For all other species listed in #2 above, seven hundred (700) square feet per tree.

e. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee as determined by the master fee schedule of the city may be substituted for required replacement plantings, with all such revenues applied toward tree planting in city parks, streets and medians.

f. Plantings shall be installed prior to the issuance of a final inspection of the building permit, subject to seasonal constraints, and shall be maintained by the project applicant until established. The Tree Reviewer of the Tree Division of the Public Works Agency may require a landscape plan showing the replacement planting and the method of irrigation. Any replacement planting which fails to become established within one year of planting shall be replanted at the project applicant's expense.

[21] These Development Standards apply to ALL projects that involve a Tree Protection/Removal Permit for removal of a protected tree.

SCA-47. Tree Protection During Construction[22]

Prior to issuance of a demolition, grading, or building permit.

Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the City Tree Reviewer. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.

b. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the City Tree Reviewer from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.

c. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the Tree Reviewer from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the tree reviewer. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.

d. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.

e. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Agency of such damage. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.

f. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

[22] These Development Standards apply to ALL projects that involve a Tree Protection/Removal Permit because a protected tree is located within 10 feet of construction.

SCA-82. Erosion, Sedimentation, and Debris Control Measures[23]

Prior to issuance of demolition, grading, or construction-related permit

The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.

b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.

d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

e. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

[23] These Development Standards apply to ALL projects that involve a Creek Protection Permit.

j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, stormdrains.

l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).

m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.

n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

SCA-83. Creek Protection Plan[24]

Prior to and ongoing throughout demolition, grading, and/or construction activities

a. The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after construction of the project. The plan shall fully describe in plan and written form all erosion, sediment, stormwater, and construction management measures to be implemented on-site.

b. If the plan includes a stormwater system, all stormwater outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.

SCA-84. Regulatory Permits and Authorizations

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:

[24] These Development Standards apply to ALL projects that involve a Category III and IV Creek Protection permit).

a. U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act.

b. Regional Walter Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above.

c. California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG.

SCA-85. Creek Monitoring

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.

SCA-86. Creek Landscaping Plan

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.

a. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.

b. All landscaping indicated on the approved landscape plan shall be installed prior to the issuance of a Final inspection of the building permit, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code.

c. All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas.

SCA-87. Creek Dewatering and Aquatic Life[25]

Prior to the start of and ongoing throughout any in-water construction activity

a. If any dam or other artificial obstruction is constructed, maintained, or placed in operation within the stream channel, ensure that sufficient water is allowed to pass down channel at all times to

[25] These Development Standards apply to ALL projects that involve a Creek Protection Permit AND dewatering or diversion of water.

maintain aquatic life (native fish, native amphibians, and western pond turtles) below the dam or other artificial obstruction.

b. The project applicant shall hire a biologist, and obtain all necessary State and federal permits (e.g., CDFG Scientific Collecting Permit), to relocate all native fish/native amphibians/pond turtles within the work site, prior to dewatering. The applicant shall first obtain a project-specific authorization from the CDFG and/or the USFWS, as applicable to relocate these animals. Captured native fish/native amphibians/pond turtles shall be moved to the nearest appropriate site on the stream channel downstream. The biologist/contractor shall check daily for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the nearest appropriate downstream site. This condition does not allow the take or disturbance of any state or federally listed species, nor state-listed species of special concern, unless the applicant obtains a project specific authorization from the CDFG and/or the USFWS, as applicable.

SCA-88. Creek Dewatering and Diversion

Prior to the start of any in-water construction activities

If installing any dewatering or diversion device(s), the project applicant shall develop and implement a detailed dewatering and diversion plan for review and approval by the Building Services Division. All proposed dewatering and diversion practices shall be consistent with the requirements of the Streambed Alteration Agreement issued by the California Department of Fish and Game.

a. Ensure that construction and operation of the devices meet the standards in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).

b. Construct coffer dams and/or water diversion system of a non-erodible material which will cause little or no siltation. Maintain coffer dams and the water diversion system in place and functional throughout the construction period. If the coffer dams or water diversion system fail, repair immediately based on the recommendations of a qualified environmental consultant. Remove devices only after construction is complete and the site stabilized.

c. Pass pumped water through a sediment-settling device before returning the water to the stream channel. Provide velocity dissipation measures at the outfall to prevent erosion.

SCA-D. Bird Collision Reduction[26]

Prior to issuance of a building permit and ongoing

The project applicant, or his or her successor, including the building manager or homeowners' association, shall submit plans to the Planning and Zoning Division, for review and approval, indicating how they intend to reduce potential bird collisions to the maximum feasible extent. The applicant shall implement the approved plan, including all mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent.

a. Mandatory measures include **all** of the following:

   1. Comply with federal aviation safety regulations for large buildings by installing minimum intensity white strobe lighting with three-second flash instead of blinking red or rotating lights.

   2. Minimize the number of and co-locate rooftop-antennas and other rooftop structures.

   3. Monopole structures or antennas shall not include guy wires.

   4. Avoid the use of mirrors in landscape design.

   5. Avoid placement of bird-friendly attractants (i.e., landscaped areas, vegetated roofs, water features) near glass.

b. Additional BMP strategies to consider include the following:

   1. Make clear or reflective glass visible to birds using visual noise techniques. Examples include:

      A. Use of opaque or transparent glass in window panes instead of reflective glass.

      B. Uniformly cover the outside clear glass surface with patterns (e.g., dots, decals, images, abstract patterns). Patterns must be separated by a minimum 10 centimeters (cm).

      C. Apply striping on glass surface. If the striping is less than 2 cm wide it must be applied vertically at a maximum of 10 cm apart (or 1 cm wide strips at 5 cm distance).

      D. Install paned glass with fenestration patterns with vertical and horizontal mullions of 10 cm or less.

[26] The City approved supplemental standard conditions of approval in July 2011, which included the following SCA regarding bird collision reduction. This SCA applies to ALL new construction, including telecommunication towers, which include large uninterrupted expanses of glass that account for more than 40 percent of any one side of the building's exterior AND at least one of the following:

a) The project is located immediately adjacent to a substantial water body (i.e. Oakland Estuary, San Francisco Bay, Lake Merritt or other substantial lake, reservoir, or wetland); OR

b) The project is located immediately adjacent to a substantial recreation area or park (i.e. Region-Serving Park, Resource Conservation Areas, Community Parks, Neighborhood Parks, and Linear Parks and Special Use Parksand generally over 1 acre in size), which contains substantial vegetation, OR

c) The project includes a substantial vegetated or green roof (roofs with growing medium and plants taking the place of conventional roofing, such asphalt, tile, gravel, or shingles), but excluding container gardens.

E. Place decorative grilles or louvers with spacing of 10 cm or less.

F. Apply one-way transparent film laminates to outside glass surface to make the window appear opaque on the outside.

G. Install internal screens through non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects.

H. Install windows which have the screen on the outside of the glass.

I. Use UV-reflective glass. Most birds can see ultraviolet light, which is invisible to humans.

J. If it is not possible to apply glass treatments to the entire building, the treatment should be applied to windows at the top of the surrounding tree canopy or the anticipated height of the surrounding vegetation at maturity.

2. Mute reflections in glass. Examples include:

A. Angle glass panes toward ground or sky so that the reflection is not in a direct line-of-sight (minimum angle of 20 degrees with optimum angle of 40 degrees).

B. Awnings, overhangs, and sunshades provide birds a visual indication of a barrier and may reduce image reflections on glass, but do not entirely eliminate reflections.

3. Reduce Light Pollution. Examples include:

A. Turn off all unnecessary interior lights from 11 p.m. to sunrise.

B. Install motion-sensitive lighting in lobbies, work stations, walkways, and corridors, or any area visible from the exterior and retrofitting operation systems that automatically turn lights off during after-work hours.

C. Reduce perimeter lighting whenever possible.

4. Institute a building operation and management manual that promotes bird safety. Example text in the manual includes:

A. Donation of discovered dead bird specimens to authorized bird conservation organization or museums to aid in species identification and to benefit scientific study, as per all federal, state and local laws.

B. Production of educational materials on bird-safe practices for the building occupants.

C. Asking employees to turn off task lighting at their work stations and draw office blinds or curtains at end of work day.

D. Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element would largely occur as infill, in an urbanized and built-out City. The Housing Element EIR determined that compliance with policies contained in the City's General Plan, OSCAR and LUTE elements, Chapters 12.36 (Tree Ordinance) and 13.16 (Creek Protection, Storm Water Management, and Discharge Control Ordinance) of the Municipal Code, and the City's SCAs would ensure that development under the Housing Element would comply with federal, State, and local laws. In addition, future development under the Housing Element would be required to protect trees, wetlands, and other biological resources that may be suitable habitat for sensitive or special status species. No significant impacts on biological resources were identified.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The project would have a significant impact on the environment if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
3. Have a substantial adverse effect on federally protected wetlands (as defined by section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means;
4. Substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;
6. Fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removal of protected trees under certain circumstances [NOTE: Factors to be considered in determining significance include the number, type, size, location and condition of (a) the protected trees to be removed and/or impacted by construction and (b) protected trees to remain, with special consideration given to native trees. Protected trees include *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be protected trees]; or
7. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. [NOTE: Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of riparian and/or aquatic habitat through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) adversely impacting the riparian corridor by significantly altering vegetation or wildlife habitat.]

METHODOLOGY AND ASSUMPTIONS

Potential impacts resulting from implementation of the proposed Plan were evaluated based on a review of the following data sources:

- Existing resource information for the Planning Area;

- Data presented in the California Natural Diversity Database (CNDDB)[27] and the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California,[28] for the Planning Area and the West Oakland USGS 7.5 minute topographic quadrangle, which includes the Planning Area;
- Identification of critical habitat for Endangered or Threatened species, as identified by the US Fish and Wildlife Service; and
- Previous environmental impact reports covering the Planning Area. In particular, the Measure DD Implementation Project EIR, published in 2007, was referred to for existing conditions analysis of biological resources in and along Lake Merritt, Lake Merritt Channel, and the Estuary waterfront, and the Proposed Amendments to the Central District Urban Renewal Area EIR, published in 2011, was referred to for the remainder of the Planning Area.

Based on a review of relevant biological resources documentation, this EIR presents a list of special-status species that were observed or had the potential to occur in the Planning Area, due to the presence of the basic habitat types that they inhabit.

SUMMARY OF IMPACTS

Implementation of the proposed Station Area Plan would include substantial new development of mid- and high-rise buildings. The Plan would also support Measure DD-funded improvements along Lake Merritt and Lake Merritt Channel that would include restoration and tree planting; and extension of park land along the Channel south of I-880. Development and park land improvements have the potential to create impacts on biological resources in the Planning Area. No habitat conservation plan or natural community conservation plan applies within the Planning Area, and so there would be no impacts with regard to significance threshold 5. Potential impacts related to other criteria are summarized below.

Impact BIO-1 – Special Status Species

Twelve special status species are identified as having a moderate or high potential to occur, or are known to occur, in or adjacent to the Planning Area. Another nine special status species are considered to have a low potential to occur. The proposed Plan may be expected to have a less than significant impact on these species. The Plan would contribute to habitat improvements along Lake Merritt Channel. New development will be required to adhere to existing regulations, including the City of Oakland Condition of Approval (SCA) that limits the impact of tree removal on nesting birds and other SCA that ensure Low Impact Development (LID) that will improve water quality in Lake Merritt over the long term, making this potential impact less than significant.

Impact BIO-2 – Riparian Habitat

There is currently no riparian habitat or other sensitive natural community in the Planning Area. However, planned improvements along Lake Merritt Channel will add new vegetation and potentially create riparian habitat, and existing City of Oakland SCA ensure that riparian corridors are protected with new development, making this potential impact less than significant.

[27] CDFG, 2012.

[28] CNPS, 2012.

Impact BIO-3 – Wetlands

Currently, only a small section of Lake Merritt Channel and its banks are classified as wetlands that would be federally protected. The proposed Plan supports completion of Measure DD improvements that include restoration in this area that would create additional areas of open water and marsh, potentially creating additional wetlands. Any wetlands that are impacted by this or any other project in the Planning Area will be required to comply with existing Clean Water Act provisions, making this potential impact less than significant.

Impact BIO-4 – Wildlife Movement and Nursery Sites

Several migratory bird species have been observed using the Lake Merritt Channel corridor, and migratory fish may also use the Channel. In the short term, construction impacts that could potentially disturb native or migratory animals will be less than significant with compliance with all Clean Water Act regulations and City of Oakland SCA. Over the long term, planned improvements to Lake Merritt Channel, including the replacement of culverts with clear span bridges, the creation of new open water and marsh areas, and the completion of a park land corridor between Lake Merritt and the Estuary, should have a beneficial impact on wildlife movement. However, increased recreational use of this corridor by boaters could potentially impact the use of the Channel by water birds. The proposed Plan includes a policy to restrict small-boat use of Lake Merritt Channel to the non-wintering period of April to September, and to extend this policy to the section of the Channel south of 7th Street in tandem with the extension of park land between I-880 and the Estuary.

Development under the Station Area Plan is expected to include many new tall buildings and additional lighting, both of which could result in additional impacts to migrating birds. However, with adherence to existing regulations, in particular SCA D, this potential impact is less than significant. In addition, the Station Area Plan would lower maximum building heights, while Station Area Plan design guidelines aim to minimize the negative impacts of new sources of light and glare. These are not needed to reduce the impact to less than significant.

Suitable nesting habitat for several bird species exists in the Planning Area, particularly along Lake Merritt Channel. The most extensive changes to existing vegetation will occur as a result of Measure DD-funded improvements, for which environmental review has been completed, and which will comply with all City of Oakland SCA relating to tree removal and protection.

Adherence to existing SCA and other regulations as well as the proposed Plan policy to restrict boat use of the Channel will make the potential impact on fish and wildlilfe movement and nursery sites as a result of any new development in the Planning Area less than significant.

Impact BIO-5 – Tree Protection Ordinance

As noted above, Measure DD-funded improvements along Lake Merritt and the Channel involve extensive changes, including the removal of 106 trees that meet the standards for protection under the City's Tree Protection Ordinance. However, the great majority of these trees were ornamental trees, many were in fair or poor condition and/or planted in parking lot strips or the street median, and they are being replaced at a nearly 2:1 ratio. Elsewhere in the Planning Area, new development activities are expected to occur on parcels with very few trees; meanwhile, proposed streetscape improvements will lead to a large number of new trees. Development under the proposed Plan will adhere to the Tree Protection Ordinance, making this impact less than significant.

Impact BIO-6 – Creek Protection Ordinance

All properties in the Planning Area are subject to the Creek Protection Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater. Development along Lake Merritt Channel is subject to the requirement to complete the requirements for a Creek Protection Permit. Almost all of this land is public park land, and much of it is subject to Measure DD-funded improvements, which are following all Ordinance requirements. A small amount of land designated for urban uses also abuts the Channel; any development here will be subject to all relevant Ordinance requirements, making this potential impact less than significant.

Cumulative Impact BIO-7 – Special Status Species and Other Biological Resources

Development following the proposed Station Area Plan, together with the impacts of other development in Oakland, could cumulatively impact biological resources through the introduction of construction activities, noise, lighting, and additional tall buildings. However, this potential impact is expected to be less than significant, because the context is already highly urbanized and has little habitat value, and because all new development in Oakland is required to adhere to existing regulations, including federal and State laws and City of Oakland SCA. Lake Merritt, the Channel, and adjacent park land and vegetation have the greatest value for wildlife. Cumulative development would not encroach on these valuable areas, and the proposed Plan would help to facilitate habitat improvements and expand open space areas. This and other policies would help to make the Plan's contribution to this potential impact not cumulatively considerable.

IMPACTS

Impact BIO-1

New development under the proposed Plan would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. ***(Less than Significant)***

As described in the Settings section, twelve special status species have been identified as having a moderate or high potential for occurrence in the Planning Area, or are known to occur in the Planning Area, including eight bird species and four mammals (all bats).

Nine additional species are considered to have a low potential for occurrence in or adjacent to the Planning Area. Each of these sensitive statuses is summarized below by its habitat requirements and likely use of the Planning Area. See the Settings section for additional detail.

Species That Have Been Observed

California brown pelicans ***(Pelecanus occidentalis Californicus)*** nest on islands and seek cover on beaches and mudflats. They are present in the Planning Area, and are known to forage and roost on Lake Merritt.

American peregrine falcons ***(Falco peregrines anatum)*** nest on cliff ledges, bridges, and tall buildings. They have no known nests in the vicinity of Lake Merritt, but have been observed foraging and roosting at multiple sites adjacent to the lake.

Barrow's goldeneye *(Bucephala islandica)* is found in lagoons, brackish lakes, and bays in the region, and is regularly observed at Lake Merritt and the Lake Merritt Channel during the late fall and winter.

Alameda song sparrow *(Melospiza melodia pusillula)* is endemic to tidal marshes dominated by pickleweek around San Francisco and San Pablo Bays. A few individuals have been observed in the dense vegetation that borders portions of the Lake Merritt Channel which represents marginal nesting habitat.

Double-crested cormorants *(Phalacrocorax auritus)* nests on islands or in trees along the edges of lakes. This species has a nesting colony at the north end of Lake Merritt and is known to forage and roost year-round at Lake Merritt. Suitable roosting habitat exists in trees adjacent to the lake.

Species with a Moderate or High Potential to Occur

Cooper's hawk *(Accipiter cooperi)* forages in open woodlands and wooded margins and nests in tall trees, often in riparian areas. Nesting pairs were documented in Lakeside Park in 2003, and the species may forage or nest in Peralta Park or other parks with dense trees.

Red-shouldered hawks *(Buteo lineatus)* are relatively common in both rural and urban situations and can be found in residential neighborhoods and along riparian corridors or other water bodies. Large trees may provide potential nesting habitat for red-shouldered hawks.

Red-tailed hawks *(Buteo jamaicensis)* nest in a variety of trees in urban, woodland, and agricultural habitats. Large trees located within parks such as those along Lake Merritt Channel potentially provide suitable nesting habitat.

Pallid bat *(Antrozous pallidus)* may roost alone or in groups in trees in cavities or under bark and structures such as bridges and buildings. The species is only likely to occur within the Planning Area on a transient basis during spring and summer migrations.

Big free-tailed bat *(Nyctinomops macrotis)* mostly roosts in cliff crevices, but has been documented in buildings, caves, and tree cavities. This species is considered to have a moderate to high potential to occur during seasonal migrations.

Hoary bats *(Lasiurus cinereus)* are solitary and roost primarily in foliage of both coniferous and deciduous trees, often at the edge of a clearing. Suitable roosting habitat occurs in parks in the Planning Area and foraging habitat is present over parks and Lake Merritt.

Silver-haired bat *(Lasionycteris noctivagans)* roost almost exclusively in cavities and under the bark of tree, and are sometimes found in structures. The Planning Area includes suitable roosting and foraging habitat in parks and over Lake Merritt, and the species would most likely be found during winter and seasonal migrations.

These four bat species may utilize trees or abandoned buildings for roosting and turfgrass for foraging in any of the parks within the Planning Area during migratory periods but are not expected to breed and reproduce there.

Species with a Low Potential to Occur in the Planning Area

Anadromous Fish Species. Five federally-listed anadromous fish populations are considered to have a low potential to occur in the Planning Area. These are the following:

- Chinook salmon (Sacramento River winter-run ESU) *(Oncorhynchus tshawytscha)*
- Chinook salmon (Central Valley spring-run ESU) (*Oncorhynchus tshawytscha)*
- Chinook salmon (Central Valley fall/late fall run ESU) (*Oncorhynchus tshawytscha)*
- Steelhead (Central California Coast ESU) (*Oncorynchus mykiss)*
- Coho salmon (Central California ESU) (*Oncorhynchus kisutch)*

The first three of these species spawn and rear in the Sacramento River and its tributaries. Central California Coast Steelhead spawn and rear in coastal streams, while the Central California ESU of Coho salmon spawn in small streams between central California and Alaska. Individuals of each of these species travel between their spawning grounds and the ocean. While isolated individuals may occasionally stray into the Oakland Inner Harbor and Lake Merritt, the Planning Area does not include any suitable breeding habitat, and the 7th Street pump station impedes fish passage.

Tidewater goby *(Eucyclogobius newberryi)*, a Federally Endangered fish species endemic to coastal lagoons and estuaries in California, was previously thought to have been extirpated from Lake Merritt due to water quality degradation, and is still considered to have a low potential to occur.

Northern harrier (*Circus cyaneus*) may occasionally forage within the Planning Area but no suitable nesting habitat is present. The species typically nests on the ground in emergent vegetation, wet meadows, or near rivers and lakes.

Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*) is found in marshes and riparian woodlands. With only marginal habitat available in the Planning Area, potential for occurrence is low.

Mimic tryonia (California brackishwater snail) (*Tryonia imitator*) is believed to have been extirpated but is identified as having a low potential to occur in the 2011 EIR for the Proposed Amendments to the Central District Urban Renewal Area.

Planning Area Habitat

To summarize, the most important habitat features for special status species in the Planning Area are Lake Merritt and Lake Merritt Channel, the park land along the Lake and Channel, and existing buildings and bridges. Lake Merritt and the Channel are identified as having a low potential to host special status fish species due to water quality and lack of suitable habitat, but almost certainly play a role in sustaining bird and mammal species (bats) that forage over the lake. Several special status species birds are known to roost in trees along the Lake and Channel, and potentially to nest, while the Alameda song sparrow may have marginal nesting habitat along the Channel. There is also believed to be a moderate to high potential for four species of bats to roost and forage in park land habitat adjacent to Lake Merritt. Some species—American peregrine falcon, Pallid bat, and Big free-tailed bat—may nest on buildings or bridges.

Potential Impacts of Development Under the Plan

The proposed Station Area Plan will facilitate development on an estimated 30 sites, with a mix of mid- and high-rise residential, office, and mixed-use buildings. The Plan reinforces improvements to park land along Lake Merritt and Lake Merritt Channel that are already underway, and would extend these improvements southward. Streetscape improvements are also proposed for all streets in the Planning Area. Any of these activities could adversely impact special status species. Construction activities can cause noise and other disturbance for resident or migratory birds or mammals, including bats. Demolition of existing buildings and tree removal may cause a loss of habitat. An increasing number of tall buildings could impact resident or migratory birds and bats, potentially increasing the number of collisions.

However, the proposed Plan would enhance long-term conditions in the areas with the greatest habitat potential. The Plan would support completing Measure DD-funded improvements park land along Lake Merritt and the Channel, including the creation of more natural vegetation and a near-doubling in the number of trees, which could be used for roosting by several special status raptor and bat species. Native plantings are planned, including pickleweed in enhanced lower marsh areas, which could serve as habitat for Alameda song sparrow (see **Table 3.11-1**). Under the proposed Plan and following Estuary Policy Plan guidance, park land along the Channel would be extended south of I-880, providing an open space connection between the Estuary and Lake Merritt. New development will be required to adhere to existing standards to promote stormwater infiltration, and this will help to improve water quality in the Lake and Channel, where much of the Planning Area drains. Improved water quality could help Lake Merritt support a variety of species. Very few trees are likely to be lost to development, as potential development sites are existing parking lots or low-intensity commercial buildings.

The protective measures contained within Standard Condition of Approval (SCA) 44: Tree Removal During Breeding Season would be applied to all vegetation (including trees and shrubs) capable of supporting breeding birds or bats in the Planning Area. Supplemental SCA D: Bird Collision Reduction will reduce incidents of bird and bat collision as a result of new building development. The protective measures contained within the SCAs that would be incorporated into all development and other existing policies and regulations would reduce potential impacts to less than significant levels.

Mitigation Measures

None required.

Impact BIO-2

New development under the proposed Plan would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. *(Less than Significant)*

Lake Merritt Channel in the Planning Area is primarily lined with park land and landscaped areas. The southernmost section of the Channel, south of I-880, is not vegetated and has industrial uses on both sides. Future park land is currently under construction along the south shore of Lake Merritt. In short, there is no riparian habitat in the Planning Area. In addition, no other sensitive natural communities are present in the highly-urbanized Planning Area.

While vegetation along Lake Merritt Channel is not properly considered riparian habitat, it may have value for various plants and animals. Measure DD-funded improvements along the Channel should help to enhance vegetation along the Channel's banks. Planned Channel improvements include new intertidal and upland plantings consisting of native plants such as pickleweed (lower marsh areas), marsh gumplant, and salt grass (upper marsh areas and transitional zones characterized by native grasses), and shrubs and trees. Park improvements supported by the Station Area Plan should be extended south to the stretch of the Channel between I-880 and the Estuary, and could include restoration activities.

Existing General Plan policies and SCA outlined above provide for the protection and enhancement of vegetation along the Channel corridor, in particular SCA 83 through 86, which requires that native and riparian plants shall not be disturbed to the greatest extent feasible, and disturbed areas along riparian corridors shall be replanted with mature native riparian vegetation. Implementation of existing regulations makes this potential impact less than significant. Proposed Station Area Plan policies require a 100-foot setback from the eastern edge of Lake Merritt Channel, and would extend Channel improvements south of I-880, supporting existing policies.

Mitigation Measures

None required.

Impact BIO-3

New development under the proposed Plan would not have a substantial adverse effect on federally protected wetlands (as defined by section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means. ***(Less than Significant)***

Lake Merritt, Lake Merritt Channel, and the Estuary are "waters of the U.S." and are subject to the Clean Water Act. As described in the Regulatory Setting section, federally protected wetlands are a subset of waters of the U.S., defined as those areas that are inundated or saturated by surface or ground water at a frequency and duration that are sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. According to the USFWS' National Wetlands Inventory, only a very small section of Lake Merritt Channel and potentially a minimal amount of adjacent land is classified as wetlands.

As described in the Measure DD Implementation Project EIR, improvements include replacing both the 12th Street and 10th Street culverts with clear-span bridges, allowing increased tidal flow between the Lake and the Channel. In addition, the Channel would be widened and its banks regarded to create additional areas of open water and tidal marsh, and new intertidal and upland plantings, potentially adding new wetlands. These projects are supported by the Station Area Plan.

Restoration activities could result in temporary, short-term impacts to waters of the U.S. and State. The Measure DD Implementation EIR contains a mitigation measure (BIO-3b) that requires that impacts to jurisdictional wetlands be mitigated at a minimum replacement ratio of 1:1 for every acre impacted, with replacement habitat in the same general area if feasible. A wetland mitigation and monitoring plan (MMP) is also required for each mitigation site, detailing the mitigation design, wetland planting design, adaptive management, maintenance and monitoring requirements, reporting requirements, and success criteria for the created wetland(s). No existing wetlands are known to exist outside of those that may be affected under Measure DD.

Any project resulting in permanent or temporary fill of jurisdictional waters is subject to provisions of sections 401 and 404 of the Clean Water Act, sections 1600 through 1616 of the California Fish and Game Code, and Section 401 Regional Water Quality Control Board certification or waiver. Acquisition of these permits is a regulatory requirement and is not considered in and of itself mitigation for loss of waters of the United States. However, the processes for obtaining any State or federal wetlands permits involve the development of compensatory actions similar to CEQA-derived mitigation in scope and intent.

Existing regulatory requirements reduce the potential impact to wetlands to less than significant.

Mitigation Measures

None required.

Impact BIO-4

New development under the proposed Plan would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. *(Less than Significant)*

There are three primary ways in which development under the Station Area Plan has the potential to affect wildlife movement and wildlife nursery sites. The first is by having an effect on wildlife movement along Lake Merritt Channel. The second is the potential effect on birds resulting from new buildings. The third is the potential effect of new development on existing nesting sites. Each of these is discussed below.

Wildlife Movement along Lake Merritt Channel

According to the Measure DD Implementation Project EIR, several species of migratory water birds have been observed using the Lake Merritt Channel during the winter (approximately October through March), often in flocks of 40 to 70 birds. Migratory fish may also use the Channel; migratory fish species are identified as special status species and are discussed under Impact BIO-1.

Planned improvements include construction of new bridge spans and demolition of existing culvert structures at 12th and 10th Streets, and restoration activities along the Channel itself, including re-grading the banks and planting new vegetation. The Lake Merritt Station Area Plan proposes extending improvements to the stretch of Lake Merritt Channel between I-880 and the Estuary. Improvements may reasonably be expected to involve substantial temporary construction, an increase in the use of the Channel area for recreation, and improved value of Channel vegetation for wildlife over the long term.

Both construction activities and increased recreational use of the Channel have the potential to disturb wintering waterfowl. A 2004 study of water bird use and disturbance response at Aquatic Park in Berkeley found that disturbance sensitivity was positively related to flock size, with large flocks flushing (i.e., as a result of disturbance) more readily than smaller ones.[29] Human-caused disturbance negatively

[29] LSA Associates, 2007, citing Avocet Research Associates for City of Berkeley, *Aquatic Park, Berkeley, California: Waterbird Population and Disturbance Study*, 2004.

affects wintering ducks by causing the expenditure of energy (i.e., flying or moving away from the source of disturbance) that would otherwise be used for behaviors necessary for survival, such as resting or feeding.[30]

Construction-Related Impacts

Construction activities at the Lake Merritt Channel during the period when water birds are most abundant would disturb the birds, causing them to fly away from loud noises and/or workers and equipment. The impact analysis completed for the Measure DD Implementation Project concluded that because construction would occur nearly daily for several months, the birds would likely relocate to nearby areas on Lake Merritt or the Oakland Estuary during this time rather than returning to the disturbed area. The birds could then return when construction is complete.[31] In addition, construction activity in the Channel is required to comply with all regulatory requirements related to the Clean Water Act as well as to City of Oakland SCA, making this potential impact less than significant.

Long-Term Impact of Improvements along Lake Merritt Channel

As described above, Measure DD-funded projects would include improvements to the natural character of the Channel, creating more open water and tidal marsh areas and planting more native vegetation. The Station Area Plan calls for extending the linear park to the stretch of Lake Merritt Channel between I-880 and the Estuary. Improvements to this area could include similar natural treatments, and could enhance the value of the entire corridor by strengthening the natural connection between the Estuary and Lake Merritt. Any new development of creekside parcels is required to comply with SCA, which would also have the effect of resulting in improved natural vegetation along the corridor. These improvements may be expected to have a long-term, beneficial impact on wildlife movement.

Impact of Increased Recreation

Increased recreational use is another source of concern. The Measure DD-related improvements at Lake Merritt Channel include replacing culverts with clear-span bridges at 12th and 10th Streets, allowing boat passage from Lake Merritt. According to Korschgen and Dahlgren, "rapid over-water movement and loud noise" (including motor boats—not present in Lake Merritt) and "over-water movement with little noise," (including sailing, rowing, etc.) are the two most disruptive categories of human-caused disturbance to water birds.[32] If small non-motorized boats were allowed to use the Lake Merritt Channel during the wintering period (October–March), they would create a new source of disturbance to wintering ducks and other water birds. Because of the frequent and regular quality of the disturbance, many birds would likely relocate to nearby areas, reducing the number of water birds using Lake Merritt Channel over the long term.

The Measure DD Implementation Project EIR provides a mitigation measure to address this potentially significant impact. Small boat use of Lake Merritt Channel is to be restricted to the non-wintering period of April–September, when water bird abundance is low. The Station Area Plan incorporates and reinforces this with a policy that would extend the temporary closure to boats to the full extent of the

[30] LSA Associates, 2007, citing Korschgen, C. E., and R. B. Dahlgren, *Human disturbances of waterfowl: causes, effects, and management. Fish and Wildlife Leaflet 13.2.15,* 1992.

[31] LSA Associates, 2007.

[32] LSA Associates, 2007, citing Korschgen, C. E., and R. B. Dahlgren, 1992.

Channel as part of future park land development to the south. People on foot will be able to take advantage of new recreational open space year-round. This policy, together with existing regulations, including the SCA that aims to reduce bird collisions, would reduce the impact to a less than significant level.

Potential Effect of New Buildings

The proposed Station Area Plan would accommodate infill development and intensification in the Planning Area, expected to be new mid- and high-rise buildings on approximately 30 opportunity sites. According to the Massachusetts Audubon Society, birds hit every size window, and at any height, but many deaths occur when birds fly into illuminated high-rise buildings.

Under the Station Area Plan, buildings would be allowed to rise as high as economically feasible in certain areas, with height limits of 400 feet, 275 feet, 175 feet, 85 feet, and 45 feet in other parts of the Planning Area. Based on an analysis of market conditions and typical building development types, seven sites are assumed to develop with buildings in the range of 20 to 25 stories. Most other sites are expected to be in the range of six to 12 stories. New development in the Planning Area will take place in an already highly-urbanized context, with many tall buildings. While a substantial number of mid- and high-rise buildings are expected, the proposed Plan would require that towers be stepped back from building bases, minimizing potential impacts.

The Planning Area also has existing sources of light and glare typical of an urban setting, including buildings, street lights, surface parking lots, street-level retail uses, and I-880. Future development under the proposed Station Area Plan will bring new sources of nighttime lighting. However, future projects would be subject to standard project and design review, and would be required to implement Condition of Approval 40, Lighting Plan, which would minimize potential impacts resulting from lighting and ensure that lighting and glare effects remain less than significant. More directly, Supplemental SCA D: Bird Collision Reduction requires use of Best Management Practices (BMPs) for buildings with large expanses of glass located adjacent to Lake Merritt or other water bodies, to reduce bird collisions.

The Station Area Plan includes design guidelines concerning glazing, sign illumination, and lighting for parking lots and garages, that would help to minimize the negative impacts of new sources of light and glare. These are not necessary to make this impact less than significant. Existing regulations and SCA would reduce the potential impact to migratory birds to a less than significant level.

Potential Effect on Nesting Habitat

Some nesting birds have adapted to urbanized areas and can be found utilizing trees, shrubs, or even buildings for nesting habitat. Other species of birds are more sensitive and tend to utilize less disturbed areas. Suitable nesting habitat for native bird species exists in the Planning Area, particularly along Lake Merritt Channel.

Most migratory birds, their nests, and their eggs are protected under the Migratory Bird Treaty Act. In addition, CDFG Code Section 3503 prohibits the destruction of nests or eggs of most bird species, including all raptors. Destruction of active nests or overt interference with nesting activities is prohibited. Development under the proposed Station Area Plan could possibly effect nesting birds through removal of vegetation, equipment noise or vibration, or through the creation of environments more suitable for opportunistic avian species such as European starlings.

Adherence to the existing regulations, including those noted above as well as the City's SCA 44: Tree Removal During Breeding Season and other SCAs concerning tree removal (43 through 47) will reduce potential impacts to nesting birds to a less than significant level.

Proposed Plan Policies that Reduce the Impact to Less than Significant

OS-18 **Minimize disturbance to wildlife.** Small boat use of Lake Merritt Channel is restricted to the non-wintering period of April–September, when water bird abundance is low. During the closure period, booms shall be placed across the outlet to the Channel from Lake Merritt and at the 7th Street dam to prevent boat access and signs shall be posted indicating that the Channel is closed to recreational boaters. Channel closure on the south end should be extended southward from the 7th Street Bridge to the Embarcadero Bridge in tandem with future park land improvements.

Mitigation Measures

None required.

Impact BIO-5

New development under the proposed Plan would not fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code (OMC) Chapter 12.36) by removing protected trees under certain circumstances. ***(Less than Significant)***

Protected trees under the City of Oakland's Tree Protection Ordinance include *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except eucalyptus and *Pinus radiata* (Monterey pine); provided, however, that Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered to be protected trees.

The redesign of 12th Street and creation of new park land along the south shore of Lake Merritt involves the removal of an estimated 157 trees, and the replacement planting of approximately 321 new trees. Along Lake Merritt Channel, improvements would involve removing 58 trees, as part of converting some areas to a wetland character. The proposed changes were reviewed by a certified arborist, whose recommendations were incorporated into the project design. Considering the number, type, size, location and condition of the protected trees to be removed and/or impacted by construction and the protected trees to remain, including native trees, the improvements along Lake Merritt Channel have been determined in the Measure DD Implementation Project EIR to have a less than significant impact.

The Lake Merritt Station Area Plan also calls for additional parkland improvements. These include an extension of regional park land along the Lake Merritt Channel; improvements to existing neighborhood and special use parks; and improvements to existing publicly-accessible open spaces. The Station Area Plan also proposes extensive streetscape improvements, most of which would occur in Phase 1, being analyzed as part of this EIR. Street trees are to be considered for all streets where they do not currently exist.

Both new park land and new building development in the Planning Area would be developed on sites currently occupied by roadways, parking lots, vacant lots, and commercial or institutional development.

Generally these sites contain very few trees. In the case of both new open space and new building projects, development is likely to result in an increased number of trees in the Planning Area. In both cases, the City's Tree Protection Ordinance will be followed, as will SCA 43 through 47, included in the Regulatory Setting section, reducing the potential impact to less than significant.

Mitigation Measures

None required.

Impact BIO-6

New development under the proposed Plan would not fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect biological resources. *(Less than Significant)*

The City of Oakland Creek Protection Ordinance is intended to protect and enhance water quality, and biological resources that depend upon it. To protect water quality, the Ordinance prohibits non-storm water discharges to the municipal storm drainage system unless the discharge is separately regulated under an NPDES permit and is in full compliance with that permit. Pollutants that could enter the storm drainage system are to be eliminated to the greatest extent feasible. Development on creekside properties requires a creekside protection permit, which requires different degrees of documentation and review depending on the potential impact that development could have on the creek.

All properties in the Planning Area are subject to the Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater discharges.

Development along Lake Merritt Channel subject to a Creek Protection Permit under the Ordinance will be required, as per Standard Condition of Approval, to prepare and implement of a Stormwater Pollution Prevention Plan (SWPPP). Most of the land along the Channel is publicly-owned park land, and all of this land was evaluated as part of the Measure DD Implementation Project EIR. Additional land between I-880 and the Estuary is also proposed for future parkland development under the Station Area Plan. Proposed park enhancements along the Channel will include both manual activities (e.g., planting and weeding), and activities that use heavy machinery such as creek bed or bank grading, culvert or concrete channel alterations.

For those activities that involve heavy machinery or equipment to excavate or move soil, to demolish structures, or to realign stream banks or waterways, Creek Protection Permits are required under the Ordinance. For projects that meet the Category III or IV criteria based on location of the work in relation to the creek, a creek protection plan is required to describe the best management practices that will be employed to assure construction activity will not adversely impact creek bank, riparian corridor, or water quality. Successful permits require demonstration that a project would minimize erosion and sedimentation in accordance with the Manual of Standards for Erosion and Sediment Control Measures. For Category IV projects, within 20 feet of the top of the creek bank, a hydrology report is also required, to assess whether the proposed project would modify the natural flow of water, among other things.

A small amount of institutional land designated for urban (non-park) uses also abuts Lake Merritt Channel, at Laney College and Oakland Unified School District properties. If development were to occur, it would be required to comply with SCA 82 through 88, which would ensure compliance with the Creek

Protection Ordinance. In short, the Station Area Plan supports the continued enhancement of park land along Lake Merritt Channel. Park-related and any other development activity subject to the Ordinance will be required to meet all permit requirements, as well as the City's SCA, reducing this potential impact to less than significant.

The Station Area Plan reinforces these existing provisions with new policies intended to further reduce stormwater runoff, but these are not needed to reduce the impact to less than significant.

Mitigation Measures

None required.

Cumulative Impact BIO-7

Development projects associated with the implementation of the Plan in conjunction with other past, present, and reasonably foreseeable maximum development in the City of Oakland would not result in cumulative adverse impacts on special-status species or other biological resources. *(Less than Significant Cumulative Impact)*

The geographic context for analysis of cumulative impacts to biological resources includes the Planning Area and adjacent areas including Lake Merritt and the Oakland Estuary. This analysis evaluates whether the impacts of the proposed Station Area Plan, together with the impacts of other development in Oakland as represented by the Active Major Development Projects list (Appendix B) would result in a cumulatively significant impact on special-status species or other biological resources (as defined by the significance criteria and thresholds). This analysis then considers whether or not implementation of the Station Area Plan would make a substantial contribution to the cumulative impact.

Intensive development over a long period of time in central Oakland has resulted in the loss of earlier habitat as well as the introduction of night lighting, tall buildings, and increased noise. While there is the potential for construction and operational noise, erosion, tall buildings, or lighting to resulting from the implementation of the Station Area Plan and other reasonably foreseeable maximum development throughout the city, the cumulative negative change for biological resources is likely to be very small in the cumulative context due to its highly developed condition. Moreover, new development under the proposed Station Area Plan as well as other new development is required to adhere to existing regulations, including federal and State laws and City of Oakland SCA that limit the impact of tree removal on nesting birds, and require Low Impact Development (LID) that helps to improve water quality. The proposed Station Area Plan would help facilitate habitat improvements and protections along Lake Merritt Channel, which could have beneficial impacts for wildlife including special status species, and on the protection and enhancement of the very minimal wetlands that exist in the Planning Area. The Plan also introduces lower building height limits in certain areas as well as massing guidelines that should result in slimmer towers, minimizing the potential for bird collisions. When considered relative to past, present, and reasonably foreseeable maximum development, the contribution of the proposed Plan in terms of biological resource disturbance or destruction would not be cumulatively considerable.

Mitigation Measures

None required.

3.12 Geology and Soils

This section provides an overview of the existing geological and soil conditions, including seismic issues, in the Planning Area and surrounding environment, the regulatory framework, an analysis of related impacts that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

Geology and Soils

The City of Oakland includes the mountainous uplands of the Oakland-Berkeley Hills and an alluvial plain that slopes gently westward away from these hills to meet the flat marginal baylands of the San Francisco Bay. Oakland lies within the geologic region of California referred to as the Coast Ranges geomorphic province, which lies between the Pacific Ocean and the Great Valley (Sacramento and San Joaquin valleys) provinces and is characterized by a series of northwest trending mountain ridges and valleys, running generally parallel to the San Andreas Fault zone. Much of the Coast Range province is composed of marine sedimentary and volcanic rocks that form the Franciscan Assemblage, which in this region of California, consists primarily of greenstone (altered volcanic rocks), basalt, chert (ancient silica-rich ocean deposits), and sandstone that originated as ancient sea floor sediments.

The flat area of the East Bay west of the Hayward Fault is a gently sloping alluvial plain. The sediments of the alluvial plain were eroded from the relatively young East Bay Hills. These flats have been expanded along the margins of San Francisco Bay, particularly along the Alameda and Oakland shoreline, by the addition of artificial fill over unconsolidated Young Bay Mud (Bay Mud).[1] Bay Mud is a natural marine deposit that consists of soft saturated clays that can contain lenses of sand and shell fragments. Development on artificial fill placed over Bay Mud often presents unique geotechnical engineering challenges because, unless the fill is properly engineered, structures can be damaged by differential settlement and subsidence. Under the bearing load of a new structure, Bay Mud tends to go through a cycle of consolidation that can lead to settlement. As a result, Bay Mud has a low bearing strength, often leading to foundation failure or excessive differential settlement, and is susceptible to liquefaction.

[1] LSA Associates, *Measure DD Implementation Project EIR,* 2007, citing Sloan, Doris, *Geology of the San Francisco Bay Region,* University of California Press, 2006.

In general, areas of less than 10 feet elevation mean the sea level adjacent to Lake Merritt and Lake Merritt Channel are artificial fill over Bay Mud. Where slopes rise above this level, such as west of Lake Merritt, the near surface deposits are typically Merritt Sand (beach and dune sand) likely of Pleistocene age (more than 10,000 and less than 1.8 million years old).[2]

Soil Erosion

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, the action of waves, wind and underground water. Excessive soil erosion can eventually lead to damage of building foundations and roadways. The Planning Area is relatively flat and mostly developed, giving it a low potential for erosion. Construction projects that expose soils could risk erosion during certain phases unless they follow best practices for construction site management.

Expansive Soils

Expansive soils possess a "shrink-swell" behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage to buildings can occur over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

The sandy composition of Merritt Sand soil underlying more inland parts of the Planning Area makes it unlikely to exhibit shrink-swell behavior. The Bay Mud and artificial fill that presumably underlie parts of the Planning Area close to the Lake and Channel could potentially be subject to shrink-swell behavior. The actual presence and extent of expansive soils could only be determined as part of geotechnical studies for specific development sites.

Settlement

Settlement occurs as a result of new loads being placed on soils or as a result of soil liquefaction during an earthquake. With the first type, immediate settlement occurs when a load from a structure or placement of new fill material is applied, while a more gradual consolidation settlement occurs as water content is squeezed out of saturated clay as a load settles. Settlement resulting from liquefaction tends to occur rapidly, as discussed under *Seismic Hazards*.

Portions of the Planning Area underlain by artificial fills are likely to experience consolidation settlement following the addition of new building loads, while areas underlain by Merritt Sand are not likely to compress significantly over time. In some locations, a variety of fill material may result in some degree of differential settlement.

Seismic Hazards

The San Francisco Bay Area region contains both active and potentially active faults and is considered a region of high seismic activity. The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities has evaluated the probability of one or more earthquakes of Richter magnitude 6.7 or higher occurring in the San Francisco Bay Area within the next 25 years. The result of the

[2] Helley, E.J., LaJoie, K.R., *Flatlands Deposits of the San Francisco Bay Region, California – Their Geology and Engineering Properties, and Importance to Comprehensive Planning,* USGS Professional Paper 943, 1979.

evaluation indicated a 63 percent likelihood that such an earthquake event will occur in the Bay Area between 2006 and 2036.[3]

The closest active fault to the Planning Area is the Hayward fault, which runs to the east along Highway 13 and I-580 and is more than two miles away at its nearest point. The Hayward fault is designated by the Alquist-Priolo Earthquake Fault Zoning Act as an active fault which is defined as having displacement within the last 11,000 years. Although large earthquakes on the Hayward fault have been rare since 1868, slow fault creep has continued to occur.

The San Andreas fault, located as close as 14 miles southwest of the Planning Area along the San Francisco Peninsula, is a major structural feature that forms at the boundary between tectonic plates. The San Andreas Fault Zone was the source of the two major earthquakes in recent history that affected the San Francisco Bay region. The Calaveras fault, located about 15 miles east of the Planning Area at its closest point, is a major right-lateral strike-slip fault that has been active during the last 11,000 years. The Calaveras fault has been the source of several moderate magnitude earthquakes, and the probability of a large earthquake is much lower than on the San Andreas or Hayward faults. Other major faults in the Bay Area that could rupture include the Concord-Green Valley, and Marsh Creek-Greenville faults. Seismic activity along any of these faults could create hazards such as ground shaking and liquefaction.

Surface Rupture

Surface rupture can damage or collapse buildings, cause severe damage to roads and pavement structures, and cause failure of overhead as well as underground utilities. As a result of the damage, buildings can become uninhabitable, roads can close, and utility service can be disrupted for an undetermined length of time. Ground rupture is considered more likely along active faults. No active faults pass through the Planning Area so this hazard is unlikely to affect the proposed Plan.

Ground Shaking

Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. For this reason, earthquake intensities are also measured in terms of their observed effects at a given location. The Modified Mercalli (MM) intensity scale (**Table 3.12-1**) is commonly used to measure earthquake damage due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total), and intensities ranging from IV to X can cause moderate to significant structural damage. The intensities of an earthquake vary over the region of a fault and generally decrease with distance from the epicenter of the earthquake. In the case of a major earthquake along the Hayward Fault, the Planning Area could experience a MM intensity shaking severity level of Violent (IX) to Very Violent (X).[4]

[3] U.S Geological Survey Working Group website, http://earthquake.usgs.gov/regional/nca/ucerf/images/2008probabilities-lrg.jpg, accessed January 11, 2010.

[4] Association of Bay Area Governments (ABAG) website, http://gis.abag.ca.gov/website/Shaking-Maps/viewer.htm, accessed January 11, 2010.

Table 3.12-1: Modified–Mercalli Intensity Scale (Ground Shaking)

Intensity Value	*Intensity Description*	*Average Peak Acceleration*
I	Not felt except by a very few persons under especially favorable circumstances.	< 0.0017 g
II	Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.	< 0.014 g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly, vibration similar to a passing truck. Duration estimated.	< 0.014 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.	0.014–0.039 g
V	Felt by nearly everyone, many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.039–0.092 g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; and fallen plaster or damaged chimneys. Damage slight.	0.092–0.18 g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.	0.18–0.34 g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.	0.34–0.65 g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65–1.24 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 1.24 g
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 1.24 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 1.24 g

Note: g (gravity) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

Source: ABAG and California Geological Survey, 2003.

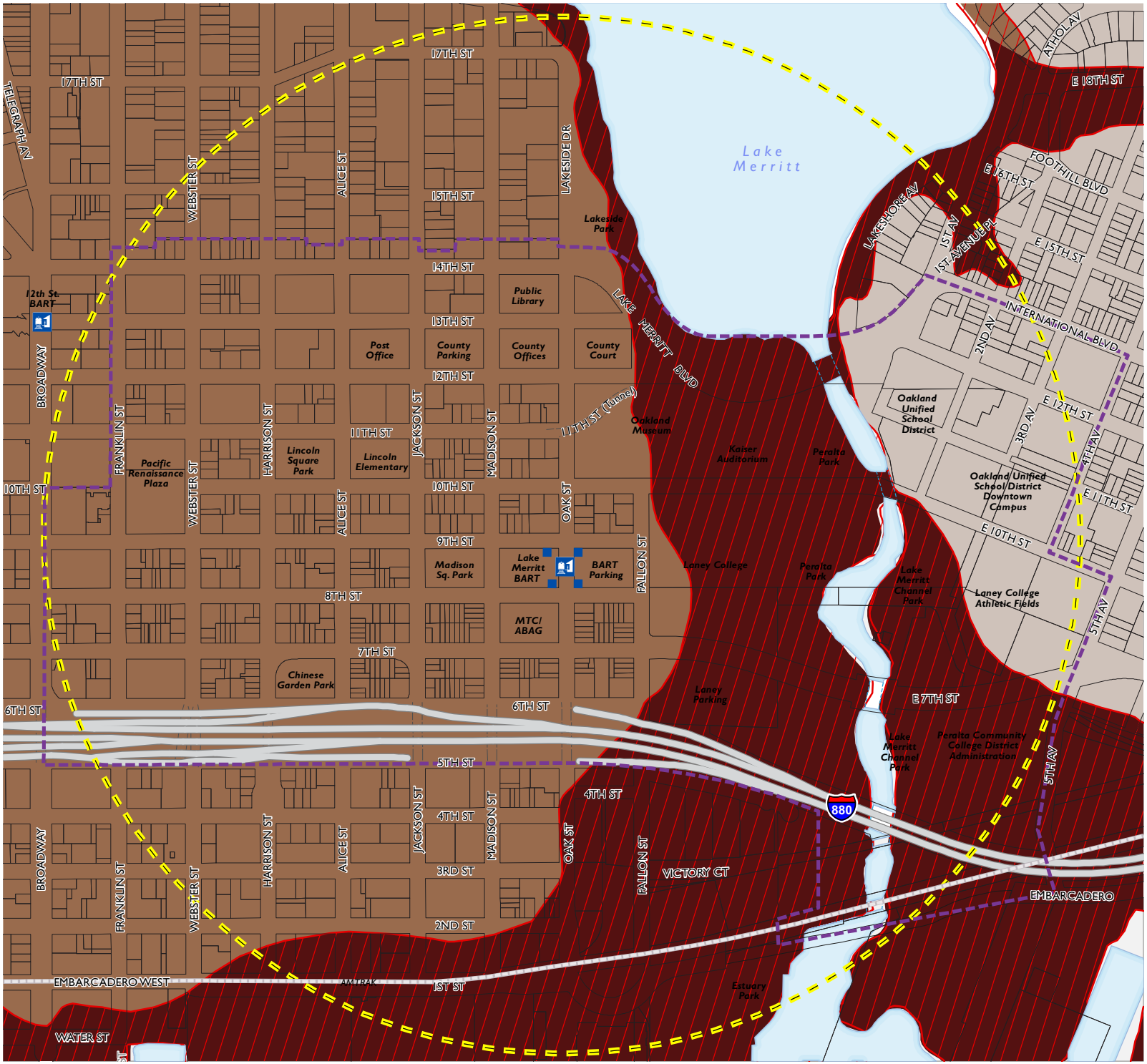

Fig 3.12-1
Seismic Hazards

- BART Station Entrance
- BART Station
- Seismic Hazard Zone

Liquefaction Susceptibility

- Very High
- Moderate
- Low
- Water
- Planning Area
- 1/2 Mile Radius

0 100 300 500 750 1,000
FEET

Source: United States Geological Survey, 2006; ABAG, 2006; California Geological Survey, 2009; City of Oakland, 2009; Dyett and Bhatia, 2012.

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Liquefaction

During an earthquake, liquefaction can occur which can cause ground displacement and ground failure such as lateral spreads (essentially landslides on nearly flat ground next to rivers, harbors, and drainage channels) and flows. Liquefaction is a transformation of soil from a solid to a liquefied state during which saturated soil temporarily loses strength resulting from the buildup of excess pore water pressure, especially during earthquake-induced cyclic loading. Soils susceptible to liquefaction include saturated loose to medium dense sands and gravels, low-plasticity silts, and some low-plasticity clay deposits. Areas along existing and filled stream channels and flood plains, particularly those areas with deposits less than 10,000 years old are most vulnerable to liquefaction. Liquefaction and associated failures could damage foundations, disrupt utility service, and can cause damage to roadways.

According to USGS mapping of liquefaction susceptibility, most of the Planning Area west of Lake Merritt Channel has moderate liquefaction susceptibility, and the area east of the Channel has low liquefaction susceptibility.[5] Areas adjacent to Lake Merritt, the Channel and the Estuary have very high liquefaction susceptibility, and have been mapped as a Liquefaction hazard Seismic Hazard Zone under the Seismic Hazards Mapping Act.[6] This area includes most of the Laney College campus and the Kaiser Auditorium, but does not include Oakland Unified School District property east of the Channel. Liquefaction problems in past earthquakes have not been as significant as shaking, but can cause extensive damage. Categories of susceptibility to liquefaction were based on Geologic map units in the digital Quaternary map, and were grouped into typical ground water levels, typical sediment properties, and occurrences during past earthquakes.[7] Liquefaction susceptibility is shown on **Figure 3.12-1**.

Landslides

Slope failures, commonly referred to as landslides, include phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Areas susceptible to landslides are characterized by steep slopes and downslope creep of surface materials. Debris flows consist of a loose mass of rocks and other granular material that, if saturated and present on a steep slope, can move downslope. The rate of rock and soil movement can vary from a slow creep over many years to a sudden mass movement. Landslides occur throughout the state of California, however, the density of incidents increases in zones of active faults. The Planning Area is not located in an area where earthquake-induced landslides are likely to occur because of its relatively flat topography. Therefore, the risk of landslide at the site is low and is not discussed further in this analysis.

Tsunamis and Seiches

According to the Safety Element of the City's General Plan, tsunamis could affect low-lying areas along San Francisco Bay and the Oakland Estuary, especially filled areas that are only a few feet above sea level. The Planning Area, however, is not within the area most likely to be inundated by a tsunami having a wave height of 20 feet (a once-in-200-years event) as determined by the U.S. Geological Survey; it would be sheltered by the island of Alameda.

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[5] ABAG, Earthquake and Hazards Information website, http://gis.abag.ca.gov/website/Shaking-Maps/viewer.htm, accessed August 2012. Based on USGS Survey.

[6] California Geological Survey, Seismic Hazards Zonation website, http://www.conservation.ca.gov/cgs/shzp/Pages/Index.aspx accessed August 2012.

[7] ABAG, *The Real Dirt on Liquefaction, Appendix A,* 2001.

Seiches are waves in an enclosed or semi-enclosed body of water such as a lake, reservoir or harbor. The Safety Element reports that there is no data on the local occurrence or impact of seiches, as none has ever been recorded in the Bay Area and Lake Merritt is likely too shallow to be able to generate devastating seiches.

REGULATORY SETTING

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The Alquist-Priolo Act regulates development on or near active fault traces to reduce the hazard of fault rupture and to prohibit the location of most structures for human occupancy across these traces.[8] Cities and counties must regulate certain development projects within the delineated zones, and regulations include withholding permits until geologic investigations demonstrate that development sites are not threatened by future surface displacement (Hart, 1997). Surface fault rupture, however, is not necessarily restricted to the area within an Alquist-Priolo Zone. The Planning Area does not lie within or include an Alquist-Priolo Zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced landslides. The purpose of the Act is to protect public safety from the effects of strong ground shaking, liquefaction, landslides, and other ground failure, and other hazards caused by earthquakes. The Act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit is granted for a site within a seismic hazard zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. A portion of the Planning Area on both sides of Lake Merritt Channel is mapped as a Liquefaction zone.

California Building Code

The California Building Code (CBC) has been codified in the California Code of Regulations (CCR) as Title 24, Part 2. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, and general stability by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all building and structures within its jurisdiction. In addition, the CBC contains necessary California amendments which are based on the American Society of Civil Engineers Minimum Design Standards 7-05, which provide requirements for general structural design and include means for determining earthquake loads as well as other loads (flood, snow, wind, etc.) for inclusion into building codes. The provisions of the CBC apply to the

[8] A "structure for human occupancy" is defined by the Alquist-Priolo Act as any structure used or intended for supporting or sheltering any use or occupancy that has an occupancy rate of more than 2,000 person-hours per year.

construction, alteration, movement, replacement, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The earthquake design requirements take into account the occupancy category of the structure, site class, soil classifications, and various seismic coefficients which are used to determine a Seismic Design Category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site and ranges from SDC A (very small seismic vulnerability) to SDC E/F (very high seismic vulnerability and near a major fault). Design specifications are then determined according to the SDC.

Regional and Local Regulations

Local Hazard Mitigation Plan

Oakland recently (March 2012) adopted ABAG's Multi-Jurisdictional Local Hazard Mitigation Plan for the Bay Area and an updated local addendum to that plan, the City of Oakland Annex. Together these form the City's Local Hazard Mitigation Plan (LHMP), which amends the Safety Element of the City's General Plan. The City collaborated with ABAG in preparing the regional plan, and preparation of the Annex focused on reviewing preexisting programs and identifying any gaps that may lead to disaster vulnerabilities.

The goal of the ABAG MJ-LHMP is to maintain and enhance a disaster-resistant region by reducing the potential for loss of life, property damage, and environmental degradation from natural disasters, while accelerating economic recovery from those disasters. The City's LHMP has the added objective of reducing the number of public and private buildings within the City that are vulnerable to the effects of earthquakes, with a focus on seismic retrofitting as a pre-disaster mitigation.

City of Oakland General Plan

The Safety Element of the General Plan addresses large-scale hazards, including earthquakes. Policies of the Element that regulate geologic and soil issues include the following, and are detailed with additional actions. Note: policies concerning clean-up of hazardous soils are included in Section 3.13, Hazards and Hazardous Materials.

Safety Element Policies

Policy GE-1: Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.

Policy GE-2: Continue to enforce ordinances and implement programs that seek specifically to reduce the landslide and erosion hazards.

Policy GE-3: Continue, enhance or develop regulations and programs designed to minimize seismically related structural hazards from new and existing buildings.

Policy GE-4: Work to reduce potential damage from earthquakes to "lifeline" utility and transportation systems.

Open Space, Conservation and Recreation Element Policies

Policy CO-1.1: Soil loss in new development. Regulate development in a manner which protects soil from degradation and misuse or other activities which significantly reduce its ability to support plant and animal life. Design all construction to ensure that soil is well secured so that unnecessary erosion, siltation of streams, and sedimentation of water bodies does not occur.

Policy CO-2.2: Unstable geologic features. Retain geologic features known to be unstable, including serpentine rock, areas of known landsliding, and fault lines, as open space. Where feasible, allow such lands to be used for low-intensity recreational activities.

Policy CO-2.3: Development on filled soils. Require development on filled soils to make special provisions to safeguard against subsidence and seismic hazards.

City of Oakland Municipal Code

The City of Oakland has a number of ordinances aimed at mitigating seismic and other geologic hazards. These ordinances, as described by the General Plan Safety Element, include:

- The City's subdivision ordinance (Title 16 of the Oakland Municipal Code) requires developers to file soil reports indicating any soil characteristics which may create hazards, and identifying measures to avoid soil hazards and prevent grading from creating unstable slopes.
- The unreinforced masonry ordinance (Chapter 15.28) implements the State's unreinforced masonry building law by, among other things, requiring building owners to retrofit their properties within a specified time.
- The earthquake-damaged structures ordinance (Chapter 15.24) establishes regulations and standards governing the alteration, repair, restoration and rehabilitation of earthquake-damaged buildings.
- The geologic reports ordinance (Chapter 15.20) implements the state's Alquist-Priolo Earthquake Fault Zoning Act.
- The creek protection, storm water management and discharge control ordinance (Chapter 13.16) has among its purposes to prevent activities that would contribute significantly to erosion or sedimentation.
- The City's building construction standards (Chapter 15.04) are based on the California Building Standards Code, amended to reflect local conditions.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-34. Erosion and Sedimentation Control [When no grading permit is required[9]

Ongoing throughout demolition grading, and/or construction activities

The project applicant shall implement Best Management Practices (BMPs) to reduce erosion, sedimentation, and water quality impacts during construction to the maximum extent practicable. Plans demonstrating the Best Management Practices shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division. At a minimum, the project applicant shall provide filter materials deemed acceptable to the City at nearby catch basins to prevent any debris and dirt from flowing into the City's storm drain system and creeks.

SCA-55. Erosion and Sedimentation Control Plan[10]

Prior to any grading activities:

a. The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.660 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

Ongoing throughout grading and construction activities:

a. The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

SCA-57. Vibrations Adjacent Historic Structures[11]

Prior to issuance of a demolition, grading or building permit

The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage the [insert historic building name] (Historic

[9] These Development Standards apply to ALL construction projects.

[10] These Development Standards apply to ALL projects that require a Grading Permit, except for projects that involve construction on slopes that exceed 20 percent.

[11] These Development Standards apply to ALL projects that involve construction that is adjacent to a CEQA Historic Resource or a potentially designated historic property (PDHP).

Structure) and design means and methods of construction that shall be utilized to not exceed the thresholds.

SCA-58. Soils Report[12]

Required as part of the submittal of a Tentative Tract or Tentative Parcel Map

A preliminary soils report for each construction site within the project area shall be required as part if this project and submitted for review and approval by the Building Services Division. The soils reports shall be based, at least in part, on information obtained from on-site testing. Specifically the minimum contents of the report should include:

a. Logs of borings and/or profiles of test pits and trenches:

   1. The minimum number of borings acceptable, when not used in combination with test pits or trenches, shall be two (2), when in the opinion of the Soils Engineer such borings shall be sufficient to establish a soils profile suitable for the design of all the footings, foundations, and retaining structures.

   2. The depth of each boring shall be sufficient to provide adequate design criteria for all proposed structures.

   3. All boring logs shall be included in the soils report.

b. Test pits and trenches:

   1. Test pits and trenches shall be of sufficient length and depth to establish a suitable soils profile for the design of all proposed structures.

   2. Soils profiles of all test pits and trenches shall be included in the soils report.

c. A plat shall be included which shows the relationship of all the borings, test pits, and trenches to the exterior boundary of the site. The plat shall also show the location of all proposed site improvements. All proposed improvements shall be labeled.

d. Copies of all data generated by the field and/or laboratory testing to determine allowable soil bearing pressures, sheer strength, active and passive pressures, maximum allowable slopes where applicable and any other information which may be required for the proper design of foundations, retaining walls, and other structures to be erected subsequent to or concurrent with work done under the grading permit.

e. Soils Report. A written report shall be submitted which shall include, but is not limited to, the following:

   1. Site description;

   2. Local and site geology;

   3. Review of previous field and laboratory investigations for the site;

   4. Review of information on or in the vicinity of the site on file at the Information Counter, City of Oakland, Office of Planning and Building;

[12] These Development Standards apply to ALL projects that require a Tentative Tract Map or Tentative Parcel Map (not part of this approval) except condominium conversions.

5. Site stability shall be addressed with particular attention to existing conditions and proposed corrective attention to existing conditions and proposed corrective actions at locations where land stability problems exist;

6. Conclusions and recommendations for foundations and retaining structures, resistance to lateral loading, slopes, and specifications, for fills, and pavement design as required;

7. Conclusions and recommendations for temporary and permanent erosion control and drainage. If not provided in a separate report they shall be appended to the required soils report;

8. All other items which a Soils Engineer deems necessary; and

9. The signature and registration number of the Civil Engineer preparing the report.

f. The Director of Planning and Building may reject a report that she/he believes is not sufficient. The Director of Planning and Building may refuse to accept a soils report if the certification date of the responsible soils engineer on said document is more than three years old. In this instance, the Director may be require that the old soils report be recertified, that an addendum to the soils report be submitted, or that a new soils report be provided.

SCA-60. Geotechnical Report[13]

Required as part of the submittal of a tentative Tract Map or tentative Parcel Map

a. A site-specific, design level, Landslide or Liquefaction geotechnical investigation for each construction site within the project area shall be required as part if this project and submitted for review and approval by the Building Services Division. Specifically:

1. Each investigation shall include an analysis of expected ground motions at the site from identified faults. The analyses shall be accordance with applicable City ordinances and polices, and consistent with the most recent version of the California Building Code, which requires structural design that can accommodate ground accelerations expected from identified faults.

2. The investigations shall determine final design parameters for the walls, foundations, foundation slabs, surrounding related improvements, and infrastructure (utilities, roadways, parking lots, and sidewalks).

3. The investigations shall be reviewed and approved by a registered geotechnical engineer. All recommendations by the project engineer, geotechnical engineer, shall be included in the final design, as approved by the City of Oakland.

4. The geotechnical report shall include a map prepared by a land surveyor or civil engineer that shows all field work and location of the "No Build" zone. The map shall include a statement that the locations and limitations of the geologic features are accurate representations of said features as they exist on the ground, were placed on this map by the surveyor, the civil engineer or under their supervision, and are accurate to the best of their knowledge.

[13] These Development Standards apply to ALL projects that require an application for a Tentative Tract Map or Tentative Parcel Map (not part of this approval) AND are located partially or wholly within the Seismic Hazards Zone. Exceptions include condominium conversions and single family wood or steel frame dwellings not exceeding two stories, when not part of a development of 4 or more dwellings.

5. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the projects design phase, shall be incorporated in the project.
6. Final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division prior to commencement of the project.
7. A peer review is required for the Geotechnical Report. Personnel reviewing the geologic report shall approve the report, reject it, or withhold approval pending the submission by the applicant or subdivider of further geologic and engineering studies to more adequately define active fault traces.

b. Tentative Tract or Parcel Map approvals shall require, but not be limited to, approval of the Geotechnical Report.

SCA-82. Erosion, Sedimentation, and Debris Control Measures[14]

Prior to issuance of demolition, grading, or construction-related permit

The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.

b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.

d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

e. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

[14] These Development Standards apply to ALL projects that involve a Creek Protection Permit.

f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, and stormdrains.

l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).

m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.

n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

SCA-93. Oakland Area Geologic Hazards Abatement District (GHAD)[15]

Prior to the approval of the final map

Prior to approval of the final map, the project shall complete annexation into the Oakland Area GHAD and provide evidence that all assessments, reserves and other requirements necessary to fund the GHAD with respect to the annexed properties have been established and authorized. The applicant shall prepare a

[15] These Development Standards apply to ALL projects that involve any new construction (residential, commercial, or industrial); AND includes a geologic hazard, as defined in California Public Resource Section 26507, as an actual or threatened landslide, land subsidence, soil erosion, earthquake, fault movement, or any other natural or unnatural movement of land or earth; AND technical, environmental peer review, or other applicable report pertaining to the actual or threatened geologic hazard specify the need to require a GHAD OR a greater than normal degree of construction attention, monitoring of the site, or maintenance of project improvements.

Plan of Control, as defined in Public Resource Code Section 26509 which shall specify all anticipated operations and maintenance responsibilities of the GHAD for the annexed properties.

a. The applicant shall provide an initial funding on the annexed properties in the amount to be determined by the City Engineer in accordance with the Plan of Control and the Engineer's Report for the annexed properties which shall be no later than the recordation of the final map for the project.

b. The Engineer's Report shall identify the projected costs and a budget for GHAD operations and reserve accumulation for the annexed properties.

c. The Engineer's Report shall include costs for the services of the project manager, attorney and treasurer/clerk for the GHAD.

The applicant shall request the GHAD to defend, hold harmless, and indemnify the Indemnified Parties (as that is defined in Condition #7 and their insurers against any and all liability, damages, claims, demands, judgments, losses, ("Indemnified GHAD claims") or other forms of legal or equitable relief related to the operation (including, without limitation, maintenance of GHAD owned property) of the annexed properties and in the case of the City Council members, actions taken by said members while acting as the GHAD Board of Directors. This indemnity shall include, without limitation, payment of litigation expenses associated with any action herein. The Indemnified Parties shall have the right to select counsel to represent the Indemnified Parties, at the GHAD's expense, in defense of any action specified in this condition of approval insert condition of approval number. The Indemnified Parties shall take all reasonable steps to promptly notify the GHAD of any claim, demand, or legal actions that may create a claim for indemnification under these conditions of approval. Within 90 days of the annexation to the GHAD, the applicant shall request the GHAD to enter into an Indemnification Agreement in a form acceptable to the City Attorney to establish in more specific detail the terms and conditions of the GHAD's indemnification obligations set forth herein. Any failure of any party to timely execute such Indemnification Agreement shall not be construed to limit any right or obligation otherwise specified in these Conditions of Approval.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element would largely occur as infill, in an urbanized and built-out city. The Housing Element EIR determined that compliance with policies contained in the City's General Plan, OSCAR Element and LUTE, applicable sections of the Municipal Code, and SCAs would ensure that development under the Housing Element would comply with federal, State, and local laws, and have less than significant impacts related to geology and seismic risks. In addition, the City's SCAs, would address erosion issues. In addition, future development under the Housing Element would be required to prove site suitability, with regard to geologic hazards, through a geological investigation. As such, the Housing Element EIR concluded that development at the identified opportunity sites would have a less than significant impact related to seismic failures, geologic instability, erosion, and expansive soils. There would be no impact related to the City's soils capacity to support septic tanks.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact on the environment if it would expose people or structures to geologic hazards, soils, and/or seismic conditions so unfavorable that they could not be overcome by special design using reasonable construction and maintenance practices. Specifically:

1. Expose people or structures to substantial risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault [NOTE: refer to California Geological Survey 42 and 117 and Public Resources Code section 2690 et. seq.];
    - Strong seismic ground shaking;
    - Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or
    - Landslides;
2. Result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways;
3. Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property;
4. Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property;
5. Be located above landfills for which there is no approved closure and post-closure plan, or unknown fill soils, creating substantial risks to life or property; or
6. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

METHODOLOGY AND ASSUMPTIONS

The impact analysis takes into account the geologic and seismic conditions within the Planning Area, and applicable regulations and guidelines. The proposed Station Area Plan would facilitate development and growth within the Planning Area. Consideration is given to erosion associated with future development, related construction activities, as well as potential geologic hazards posed by liquefaction, ground shaking, and underlying geologic materials. The potential for seismic activity to affect people and structures in the Planning Area and the protection from seismic hazards provided by existing standards are assessed.

This evaluation reviews applicable regulations and guidelines and published geologic, soils, and seismic maps and studies to determine the exposure of the Planning Area to geological and seismic risks. These documents and maps provide broad information on fault locations, estimated ground shaking response, and liquefaction potential. Potential impacts are consequently discussed in broad, qualitative terms. This

is a Plan level of analysis, and does not satisfy the possible need for subsequent site-specific surveys for individual projects.

SUMMARY OF IMPACTS

The proposed Station Area Plan would facilitate development of many new mid- and high-rise buildings, including some 4,900 housing units as well as 1.2 million square feet of office space, over 400,000 square feet of retail space, and close to 60,000 square feet of institutional space, in some cases replacing existing low-intensity buildings (all of these estimates represent net new development). The Plan would likely also spur rehabilitation or adaptive reuse of existing buildings. The Plan would also support infrastructure investments including streetscape improvements. New development has the potential to expose persons and structures to various geological and seismic risks, as summarized below.

Impact GEO-1 – Seismic Hazards

The Planning Area does not include an active fault or Alquist-Priolo fault zone, and does not have the risk of fault rupture. The Planning Area is also not considered at risk by tsunamis or seiches. However, it does fall within the most severe shaking intensity zones in the Bay Area. Intense ground shaking has the potential to damage buildings and harm persons in the Planning Area. A substantial portion of the Planning Area along Lake Merritt Channel is also within a liquefaction hazard zone, as identified by the California Geological Society, and is considered to have a very high potential for liquefaction, which could cause damage to structures and place people at risk through differential settlement or lateral spreading. Potential effects of the environment on the proposed Plan, such as the effects of existing earthquake hazards on new development, are legally not required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes such effects in order to provide information to the public and decision-makers.

New development under the proposed Plan will be required to follow the California Building Code's current seismic standards, and to complete soils reports. New development in the Seismic Hazard Zone will also have to complete a geotechnical study that analyzes liquefaction potential and includes a detailed engineering analysis. Adherence to these regulations makes this potential impact of seismic hazards less than significant.

Impact GEO-2 – Expansive Soil

Bay Mud and artificial fills with high clay content are likely to underlie portions of the Planning Area, and these soils are likely to have the potential to shrink and swell. Expansive soils may be compressed by the placement of new buildings, which may cause irregular settlement leading to structural damage. Adherence to the Uniform Building Code and to City of Oakland SCA, in particular SCA 58 (Soils Report) and SCA 60 (Geotechnical Study, within the Seismic Hazard Zone) make this potential impact less than significant.

Impact GEO-3 – Wells, Landfills and Other Soil Irregularities

It is possible that old groundwater wells, pits, mounds, tank vaults, or unused sewer lines exist in the Planning Area, and at potential development sites. Following the City's Grading Permit requirements, such soil irregularities would need to be removed or filled prior to permitting, reducing this potential impact to less than significant.

Cumulative Impact GEO-4 – Geologic Hazards

The cumulative impact analysis considers the potential risks to persons and property resulting from new development under the Station Area Plan together with other recent, ongoing, and reasonably foreseeable maximum development in the immediate vicinity. The Planning Area and vicinity are subject to severe ground shaking in the case of an earthquake, and portions of the Planning Area have a very high potential for seismically induced liquefaction. In addition, expansive soils could cause structural damage to new development and adjacent buildings. However, all new development is subject to the rigorous requirements of the California Building Code. The City of Oakland provides additional SCA that require soils reports, and geotechnical reports for proposed projects within the Seismic Hazard Zone. With adherence to all codes and regulations, this potential cumulative impact is less than significant, and the proposed Plan's contribution is not cumulatively considerable.

Other Potential Impacts

Potential impacts associated with erosion and loss of topsoil are discussed in the Hydrology and Water Quality section. Unknown fill soils are addressed above as part of the discussion of settlement and differential settlement. No portions of the Planning Area are located where sewers are not available, so consideration of septic tanks or other alternative wastewater disposal systems is not further discussed.

IMPACTS

Impact GEO-1

New development under the proposed Plan would not expose people or structures to substantial risk of loss, injury, or death involving:

- **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;**
- **Strong seismic ground shaking;**
- **Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or**
- **Landslides.**

(Less than Significant)

The relative proximity of the Planning Area to the Hayward Fault and other Bay Area faults makes new development under the proposed Station Area Plan subject to damage from large earthquakes by means of ground shaking, liquefaction, lateral spreading, or subsidence.

CEQA requires the analysis of potential adverse effects of the proposed Plan on the environment. Potential effects of the environment on the proposed Plan, such as the effects of existing earthquake hazards on new development, are legally not required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the proposed Plan in order to provide information to the public and decision-makers. Where a potential significant effect of the

environment on the proposed Plan is identified, the document, as appropriate, identifies City SCA and/or project-specific non-CEQA recommendations to address these issues.

Surface Fault Rupture

Any new structures constructed across an active fault could be severely damaged or destroyed by fault rupture and creep. The best approach to reducing damage potential is to avoid placing critical structures or buildings with large occupancies within the highest risk areas, notably Alquist-Priolo Earthquake Hazard Zones. There are no active faults in the Planning Area, with the nearest fault, the Hayward, located more than two miles away.

Ground Shaking

ABAG Earthquake Program maps indicate that the Planning Area falls within the most severe shaking intensity zones in the Bay Area. These regions are near active faults and are expected on average to experience stronger earthquake shaking more frequently than other parts of the Bay Area. This intense shaking can damage even strong, modern buildings. From this perspective, all proposed new development and redevelopment in the Planning Area is subject to very high earthquake shaking potential. With approximately 4,900 housing units as well as office, retail, and institutional development expected, there is the potential to expose people and structures to personal or property loss, injury, or death associated with seismic activity.

However, new development following the Station Area Plan will also be subject to the most current Uniform Building Code standards which require specific design parameters for construction in various seismic environments. The purpose of these parameters is to ensure construction of buildings that will resist collapse during an earthquake. These parameters do not protect buildings from all earthquake shaking hazards, but are designed to reduce hazards to a manageable level. Development and redevelopment under the proposed Plan thus would be expected to reduce vulnerability compared to existing conditions by adding new buildings that meet the most current code requirements, upgrading some older buildings so that they meet current codes, and replacing some older, non-conforming structures with ones that are fully "up to code." The City of Oakland's Standard Condition of Approval (SCA) 58: Soils Report is required to facilitate compliance with the Building Code.

Of note in the Planning Area, with its many old buildings, the City of Oakland requires a building permit for modifications to existing buildings, or for projects that would change the use or occupancy category of a building, for example by converting the building from commercial to residential use. If the structure is not in compliance with the current seismic code, upgrades would be required before a permit is issued. This ensures that buildings that may be seismically unsound would be retrofitted before approval of adaptive reuse projects.

Further, development facilitated by the Plan would be required to complete project-level environmental review pursuant to CEQA, as appropriate. The potential impacts related to seismic hazards resulting from construction and operation of specific projects would be analyzed at a greater level of detail, taking into account the project's unique geologic conditions and structural components.

Liquefaction and Other Seismic-Related Ground Failure

ABAG Earthquake Program maps indicate that all of the Planning Area west of Laney College and the Kaiser Auditorium has a moderate susceptibility to liquefaction, while the area on both sides of Lake

Merritt Channel, including most of the Laney College campus, some OUSD's Downtown Complex, and adjacent opportunity sites, has a very high susceptibility to liquefaction. Similar to earthquake shaking hazard, however, redevelopment in this area is expected to reduce vulnerability inasmuch as new construction and retrofits must meet the latest building code standards.

The portion of the Planning Area that is expected to have very high susceptibility to liquefaction is mapped as a Seismic Hazard Zone, and proposed development within or partly within this area would be required to comply with California Geological Survey (CGS) guidelines for evaluating and mitigating seismic hazards. To ensure compliance, standard SCAs 58 and 60 require owners/developers to prepare a soils report and geotechnical report, as described in the preceding section. As above, project-level environmental review of new development will also be required as appropriate.

To ensure compliance with the Building Code and other regulations within Seismic Hazard Zones, SCA 60, Geotechnical Report, requires analysis of ground shaking effects and liquefaction potential, and recommendations to reduce these hazards. A detailed engineering analysis must be conducted and reviewed by the Buildings Department prior to excavation, grading, or construction activities on a project site. The requirements of the Building Code and Oakland's SCA ensure that new development facilitated by the proposed Plan does not expose people or structures to an unacceptable level of risk during a large regional earthquake.

Mitigation Measures

None required.

Impact GEO-2

New development under the proposed Plan located on expansive soil, as defined in section 1802.3.2 of the California Building Code, would not create substantial risks to life, property, or creeks/waterways. ***(Less than Significant)***

As described in the Settings section, expansive soils—those with a potential to shrink and swell—can cause structural damage to buildings. Inadequate soil and foundation engineering on weak or unconsolidated soils (such as poorly engineered artificial fill) could cause soils and overlying structures to settle unevenly, thereby weakening structural facilities. Structures placed directly on expansive soils could be subject to seasonal shrink-swell effects, causing structural damage and possibly damage to underground utilities. The Bay Mud and artificial fill that are likely to underlie parts of the Planning Area closer to Lake Merritt and Lake Merritt Channel may exhibit shrink-swell potential that could result in differential settlement, especially if new development is unevenly distributed or adjacent to the shoreline. While the sandy composition of Merritt Sand underlying more inland parts of the Planning Area is not likely to pose shrink-swell hazards, larger buildings placed on this soil could still cause compression to underlying layers of mud and silt, which could result in some amount of differential settlement.

As discussed under Impact GEO-1, the City's SCA 58 and 60 require owners/developers of proposed projects to undertake a soils report and geotechnical studies (the latter is required only in Seismic Hazard Zones). Projects are required to demonstrate that new buildings are sited and designed in such a way that potential soil-related impacts are minimized, by removing and replacing soil, designing the foundation to respond specifically to the potential soil hazards, or other means. Adherence to these SCAs, as well as the Uniform Building Code, makes this potential impact less than significant. New development under the

proposed Station Area Plan will undergo project-level CEQA review as appropriate, which will further determine the potential for soil constraints to affect proposed developments.

Mitigation Measures

None required.

Impact GEO-3

New development under the proposed Plan would not be located above a well, pit, swamp, mound, tank vault, unmarked sewer line, landfill for which there is no approved closure or post-closure plan, or unknown fill soils, creating substantial risks to life or property. ***(Less than Significant)***

Before the development of the current water supply system, Oakland and other East Bay communities relied on groundwater wells. While many of these wells have been sealed or removed, others still exist, and it is possible that wells are present in the Planning Area, including at potential development sites. The California Department of Toxic Substances Control database does not show any landfill sites under closure proceedings in the Planning Area.[16]

If wells or any other abandoned structure (i.e., pits, mounds, septic tank vaults, sewer lines) are discovered during grading or construction at a future development site following the proposed Station Area Plan, they must be fully removed and/or filled to eliminate subsurface voids, following the City's Grading Permit requirements and SCA 34 and 55. Such features would also be revealed by the soil and geotechnical investigations required by SCA 58: Soils Report, and SCA 60: Geotechnical Report, for projects that require a Tentative Tract or Tentative Parcel map and are located partially or wholly within a Seismic Hazards zone. These existing regulations reduce this potential impact to less than significant.

Mitigation Measures

None required.

Cumulative Impact GEO-4

Implementation of the proposed Plan, combined with past, present, and reasonably foreseeable future development in the vicinity, would not result in an increased risk of exposure of people and property to geologic hazards. ***(Less than Significant Cumulative Impact)***

Geologic impacts do not typically combine to create an extensive cumulative impact, except in such cases as active fault zones or landslide-prone areas, neither of which is present in the Planning Area. Thus the cumulative setting for the Station Area Plan is the Planning Area and its immediate vicinity. **Table B-2** in Appendix B provides a list of active major development projects within five blocks of the Planning Area.

The Planning Area falls within the most severe shaking intensity zones in the Bay Area. Intense ground shaking has the potential to damage buildings and cause risk to life and property. In addition, a sizeable portion of the Planning Area along and primarily to the west of Lake Merritt Channel is considered to have a very high potential for seismically induced liquefaction, which could cause damage to structures and place people at risk. Portions of the Planning Area are also likely to be underlain by expansive soils,

[16] California Department of Toxic Substances Control, Envirostor website, http://www.envirostor.dtsc.ca.gov, accessed August 13, 2012.

which may cause irregular settlement leading to structural damage with the development of new buildings.

New development under the proposed Plan and recent, current, and foreseeable projects in the area would occur in close proximity to each other and to existing development. Structural damage to multiple buildings has the potential to combine to produce a cumulative impact. However, all development is subject to the current City of Oakland Building Code, which incorporates the rigorous seismic requirements of the California Building Code. Additional SCA further require soils reports, as well as geotechnical reports for proposed projects within the Seismic Hazard Zone where liquefaction potential is high. These requirements ensure that the potential for structural damage to new buildings caused by geological hazards is minimized. With adherence to all codes and regulations, this potential cumulative impact is less than significant, and the proposed Plan's contribution is not cumulatively considerable.

Mitigation Measures

None required.

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3.13 Hazards and Hazardous Materials

This section provides an overview of the existing hazards and hazardous materials in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts related to hazards and hazardous materials that would result from implementation of the proposed Station Area Plan, and mitigation measures where appropriate. Potential impacts include hazards to the public or the environment through routine transport, use or disposal of hazardous materials; upset and accident conditions involving the release of hazardous materials into the environment; or the storage or use of acutely hazardous materials near "sensitive receptors" such as housing, schools, and parks. The potential for the proposed Plan to emit hazardous emissions or handle hazardous materials near existing or proposed schools; to be located on a contaminated site; to be located within an airport land use plan area or close to an airport or airstrip are also analyzed. The proposed Plan is also evaluated for its potential impact on emergency access routes and emergency response or emergency evacuation plans, and for exposure to wildland fires.

Environmental Setting

Definitions

Hazardous Materials

Hazardous materials are substances with certain physical or chemical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Title 22 of the California Code of Regulations, Division 4.5, Chapter 11, Article 3 groups hazardous materials into the following four categories based on their properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gasses). Hazardous materials are commonly used in commercial, agricultural and industrial applications as well as in residential areas to a limited extent.

Hazardous Waste

A hazardous waste is any waste that may (1) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness, or (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bio-accumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed (California Health and Safety Code, Section 25141). Hazardous materials and wastes can result in public health hazards if improperly handled, released into the soil or groundwater, or released into the air through vapors, fumes, or dust.

Asbestos-Containing Materials

Asbestos is a naturally occurring fibrous material once commonly used as a fireproofing and insulating agent in building construction before such uses were banned by the EPA in the 1970s. Asbestos can also be atmospherically deposited from vehicle brake shoes. Naturally occurring asbestos can be found in serpentinite or other metamorphosed ultramafic rocks such as dunite, peridotite, and pyroxenite.

Lead and Lead-Based Paint

The presence of lead in soils above natural background levels can be a common occurrence in areas that were created by fill and in former industrial areas. Lead concentrations can also be elevated in fill materials because the fill can originate from building and industrial rubble containing or affected by sources of lead such as piping, coatings, and other construction materials. The California Code of Regulations, Title 22, considers waste soil to be hazardous if its total lead concentration exceeds 1,000 parts per million (ppm) and a soluble concentration exceeds 5 ppm. Tetraethyl lead (TEL) may be present from aerially deposited lead (ADL) from historic traffic. TEL was a gasoline additive, and although it is no longer used, it is persistent in surface and shallow soils.

Polychlorinated Biphenyls (PCBs)

Polychlorinated Biphenyls (PCBs) are synthetic organic oils that were historically used in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Production and use of PCBs was discontinued in 1977 following the discovery that exposure to PCBs may cause various health effects including skin conditions and reduced immune system response.

Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic Aromatic Hydrocarbons (PAHs) are a group of organic chemicals found in a wide variety of materials, including crude oil, asphalt, and creosote. Most refined petroleum products also contain PAHs, either retained from the original crude or produced during the refining process. PAHs are also produced as combustion products and therefore occur in many burned or charred materials. Chemically, PAHs have high to very high molecular weights and low solubility in water, and tend to adhere to soil particles. These factors result in generally high mobility of PAHs in the environment. The U.S. EPA has classified seven PAH compounds as probable human carcinogens.[1]

PHYSICAL SETTING

Past and present land uses in the Planning Area comprise a variety of uses over a long period of time, including many industrial and commercial activities that may pose potential environmental, health, and safety risks. The area's urban development has also involved the use of fill materials to create land adjacent to Lake Merritt and Lake Merritt Channel. Potential hazards involve development on sites where contaminated soil or groundwater is present. Potential risks also include accidents involving vehicles transporting hazardous materials or hazardous wastes, accidental spills or leaks, and improper use, handling, storage, transport, and disposal of hazardous materials.

As part of the Measure DD Project, a hazardous materials study was completed in 2002 for Lake Merritt Channel and properties within one-quarter mile of the Channel. The study included a regulatory records

[1] U.S. Environmental Protection Agency (EPA), 2010.

search, field inspections, and review of historical information sources, but no soil sampling. The study noted that railroad bridges over the Channel constructed prior to 1915 may be associated with petroleum hydrocarbon, lead, and/or other heavy metal contamination, as well as asbestos and/or lead-based paint.[2]

According to the EIR completed in 2007 for the Measure DD Implementation Project, the northern portion of Lake Merritt Channel and the southern margin of Lake Merritt where the 12th Street Reconstruction project is taking place were historically marsh. These areas were reclaimed with fill in the early 1900s and again in the 1950s. The fill material could contain hazardous materials, such as metals. Past industrial activities adjacent to the Channel could also have resulted in soil and/or groundwater contamination with metals, polychlorinated biphenyls (PCBs), petroleum hydrocarbons, and semi-volatile organic compounds (SVOCs).[3] Aerially-deposited lead from leaded gasoline could have affected soils along roadways, and petroleum hydrocarbons, lead, and other heavy metals could have been deposited from railroad tracks and operations.

As reported in the Measure DD EIR, a Phase II investigation completed in 2004 to selectively analyze fill, sediment, and shallow soil samples within proximity to the 12th Street improvements found that three samples contained soluble lead above California hazardous waste thresholds, as defined in Title 22, California Code of Regulations, Section 66261.24.[4] An investigation for aerially-deposited lead completed for the same project area in 2006 found that that concentrations of soluble lead were above California hazardous waste thresholds and excavated soil may therefore constitute a California hazardous waste, once excavated.[5]

Overview of Contaminated Sites

The California Department of Toxic Substances Control (DTSC) regulates hazardous waste, clean-up of existing contamination, and ways to reduce the hazardous waste produced. DTSC establishes and implements clean-up programs for properties such as former industrial properties, school sites, military bases, small businesses and landfills that are contaminated, or believed contaminated, with some level of toxic substances. **Table 3.13-1** lists the three DTSC clean-up sites in the Planning Area and summarizes their current status. One of these sites, the former Oakland Area Hospital (Hotel Oakland), has potential sources of contamination including solvents, fuels, and metals that may or may not pose health risks to occupants but are not anticipated to pose health risks to residents or employees outside the building. The two other sites are on Oakland Unified School District (OUSD) properties. DTSC entered into a school cleanup agreement with OUSD in 2010 to remediate contamination at the Downtown Educational Complex site; the first phase of cleanup was completed in 2011. Meanwhile, DTSC concluded that no further action is required at the Dewey School site.

The California State Water Board regulates Leaking Underground Storage Tank (LUST) cleanup sites. A LUST site is undergoing cleanup due to an unauthorized release from an Underground Storage Tank

[2] LSA Associates, *Measure DD Implementation Project EIR*, 2007.

[3] LSA Associates, 2007, citing URS, *Feasibility Study and Greenbelt Plan for the Lake Merritt Channel, Oakland, California, prepared for the Port of Oakland, 24 June, 2002*.

[4] LSA Associates, 2007, citing Baseline Environmental Consulting, *Phase II Environmental Site Assessment, Twelfth Street Reconstruction Project, Oakland, California*, January 7, 2005.

[5] LSA Associates, 2007, citing Baseline Environmental Consulting, *Aerially-Deposited Lead Investigation, Twelfth Street Reconstruction Project, Oakland, California*, February 2006.

(UST) system. A UST is a tank and any underground piping connected to the tank that has at least 10 percent of its combined volume underground. UST regulations apply only to underground tanks and piping storing either petroleum or certain hazardous substances. The California State Water Board also regulates Spills, Leaks, Investigation, and Cleanups (SLIC) sites. The SLIC program investigates and regulates non-permitted discharges.

Table 3.13-2 details the 10 open LUST clean-up sites and three SLIC sites in the Planning Area. The locations of the sites described in **Tables 3.13-1** and **3.13-2** are mapped in **Figure 3.13-1**. Seven of the 10 open LUST sites in the Planning Area are designated as Open-Site Assessment, which means those sites are undergoing site assessment for potential contaminants of concern and the extent of contamination. Three sites are designated as Open- Site Remediation; these may still be undergoing site assessment but may also have a remediation system currently being planned or in operation.

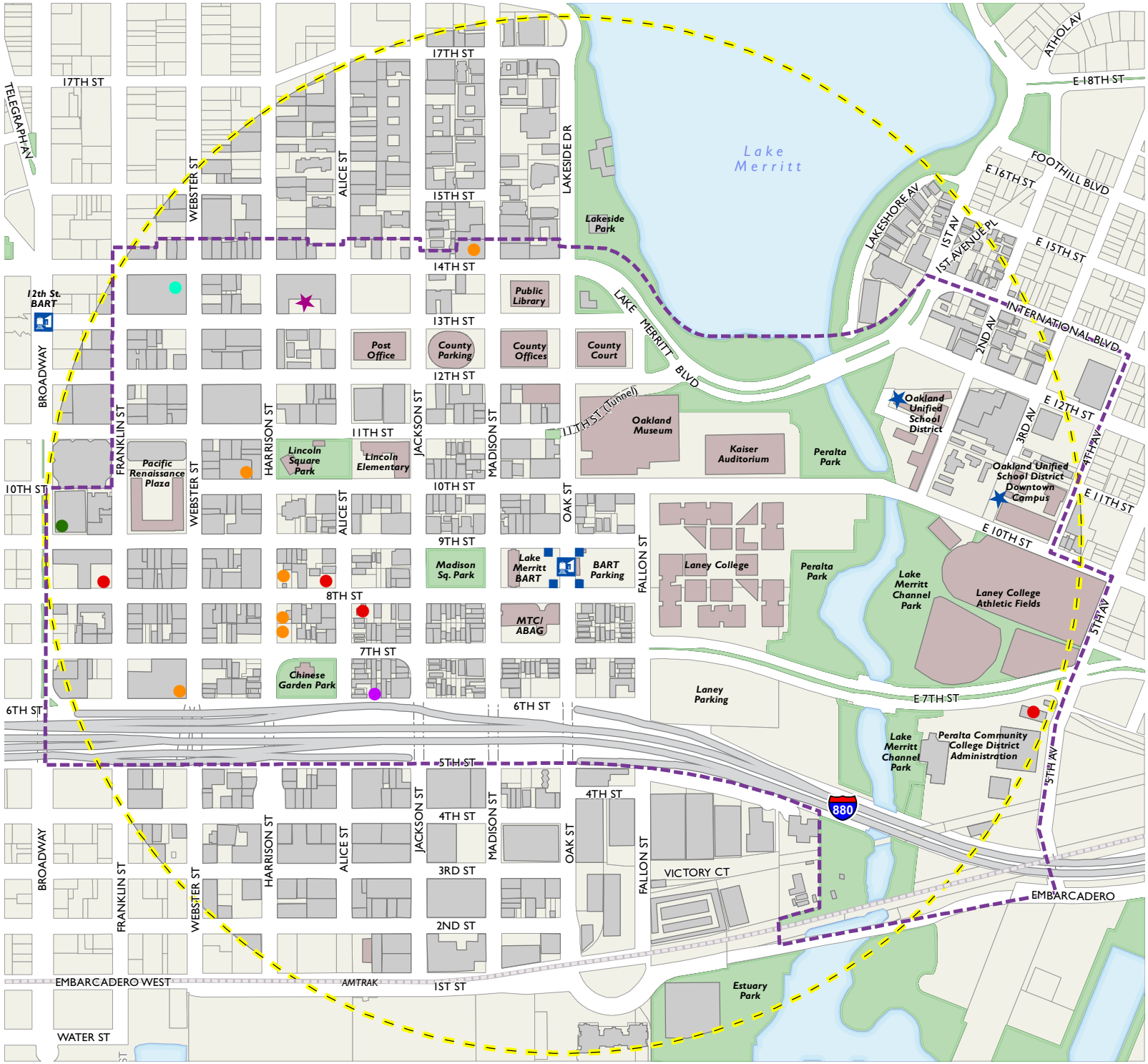

Fig 3.13-1
Contaminated Sites

- BART Station Entrance
- BART Station

Department of Toxic Substance Control Clean Up Sites

- School Investigation Site
- State Response

California State Waterboard Open Sites

- (LUST) Cleanup Sites, Open - Remediation
- (LUST) Cleanup Sites, Open - Site Assessment
- (LUST) Cleanup Sites, Open-Verification Monitoring
- Other Cleanup Sites, Open - Inactive
- Other Cleanup Sites, Open - Remediation
- Other Cleanup Sites, Open - Site Assessment

- Public Buildings/ Major Destinations
- Building Footprints
- Water
- Existing and Planned City Parks
- Planning Area
- 1/2 Mile Radius

0 100 300 500 750 1,000
FEET

Source: FEMA DFIRM Database, Alameda County, 2011; City of Oakland, 2009; Dyett and Bhatia, 2012.

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The SLIC site designated as Open - Site Assessment requires further investigation; no cleanup actions are underway. The SLIC site designated as Open-Remediation has been incorporated into DTSC's Oak to 9th Avenue clean-up effort. One open SLIC site in the Planning Area is designated as Open - Inactive and no action is ongoing at the site. If the site is to be redeveloped, further investigation has to be done regarding potential contaminants and level of contamination.

The State Department of Health Services regulates public drinking water wells. No hazards are identified in the Planning Area by that agency.

Hazardous Building Materials

The Planning Area includes many older buildings that may have been constructed with hazardous building materials including asbestos, polychlorinated biphenyls (PCBs), and lead-based paint. If these materials are disturbed as part of demolition or rehabilitation, they could present a potential hazard to workers or the public.

Up until the 1970s when it was banned by the US Environmental Protection Agency (EPA), asbestos was extensively used as a fireproofing and insulating agent in building construction materials. Asbestos fibers present no significant health risk as long as they are contained within building materials, but when they are released into the air the tiny fibers can be inhaled and have the potential to cause lung disease or other negative health impacts.

PCBs are organic oils that were used to insulate electrical equipment such as transformers and capacitors before they were recognized as carcinogens. Beginning in the mid-1970s, the EPA banned PCBs in most new equipment and began a program to phase out certain existing PCB-containing equipment.

Lead-based paint was commonly used on interior and exterior surfaces of buildings before 1978. Through such disturbances as sanding and scraping activities, or renovation work, or gradual wear and tear, old peeling paint, or paint dust particulates have been found to contaminate surface soils or cause lead dust to migrate and affect indoor air quality. Exposure to residual lead can cause severe adverse health effects especially in children.[6]

[6] ESA, *Proposed Amendments to the Central District Urban Renewal Plan Draft EIR*, 2011.

Table 3.13-1: Department of Toxic Substances Control: Clean-up Sites

Site Name	*Address*	*Description*	*Potential Contaminants of Concern*	*Status*
State Response Sites				
Oakland Area Hospital (Hotel Oakland)	270 13th Street	The US Army used this site as a hospital between 1943 and 1947. Potential sources of contamination include fuel tanks for emergency power generators, transformers, or other electrical equipment associated with the hospital. Releases of contamination could include solvents, fuels, and metals related to motor pool operations. Site may or may not pose health risks for occupants but it is not anticipated to pose health risks to residents and employees residing outside of the building.	TPH-Diesel; TPH-Gas; TPH-Motor Oil	Inactive - needs evaluation as of 7/1/2005 As of 6/30/2008, DTSC did not concur with the Corps request for No Further Defense Action Indicated. Site has potential releases from tanks and piping, maintenance activities, and solvents.
School Investigations				
Downtown Education Complex	1029 4th Avenue, 1100 3rd Avenue, and 314 East 10th Street	5.5-acre property has been occupied by the California Jute Mill Co., residences, a trade school, an auto body shop, and a parking lot. Potential contaminants of concern in soil, soil gas, and/or groundwater. Contaminant concentrations are potentially unsafe for human health. In early 2010, DTSC entered into a school cleanup agreement with the school district to remediate contamination. Phase I cleanup of the northwestern portion of the site was completed in July 2011. Phase II cleanup plans are in progress.	Metals; Methyl Tertbutyl Ether (Mtbe); Organochlorine Pesticides (8081 Ocps); Petroleum; Polychlorinated Biphenyls (Pcbs); Polynuclear Aromatic Hydrocarbons (Pahs)	Active as of 5/13/2009
Dewey Downtown School	1102 2nd Avenue	Benzo(a)pyrene identified as a potential contaminant. While this chemical can pose health risks, the DTSC has concluded that soil and groundwater have not been affected and no remedial action is required at this site.	Benzo[A]Pyrene	No action required as of 5/16/2001

Source: California Department of Toxic Substances Control Envirostor, http://www.envirostor.dtsc.ca.gov, accessed August 20, 2012; Dyett & Bhatia, 2010, 2012.

Table 3.13-2: California State Water Board Open Clean-up Sites

Site Name	*Address*	*Description*	*Potential Contaminants of Concern*	*Impediments to Closure*	*Clean Up Status*
Open Leaking Underground Tank Open Clean-Up Sites					
Peralta College District	501 5th Avenue	In April 1992 five USTs were removed and confirmation soil sampling detected elevated levels of contamination in soil. Remedial actions were taken in 1993, 1995, and 1998. Verification sampling not performed to determine the effectiveness of the remedial action. Several areas of the site that may have been affected by leaking fuel USTs have not been investigated.	Diesel, gasoline	Site assessment incomplete; procedural impediments; other impediments.	Open - Site Assessment
Oakland Auto Parts	706 Harrison Street	In February 1991 six USTs were removed and confirmation soil sampling detected elevated levels of hydrocarbon contamination beneath the site. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites.	Benzene, gasoline	Site assessment incomplete; inadequate source control; other impediments.	Open - Site Assessment
Unocal #0752	800 Harrison Street	Three USTs were removed in 1990 and significantly elevated concentrations of petroleum hydrocarbons were detected in soil during the UST removal. Contamination was found to be migrating offsite and impacting the downgradient sites located at 726 and 706 Harrison Street. Soil and groundwater sampling completed in 2007 detected elevated levels of MTBE in the deeper water bearing zone at 48 feet bgs. This site is part of a commingled plume and remedial action is proposed to remove residual mass beneath the sites.	Gasoline	Site assessment incomplete; inadequate source control; plume instability; other impediments.	Open - Site Assessment

Table 3.13-2: California State Water Board Open Clean-up Sites

Site Name	*Address*	*Description*	*Potential Contaminants of Concern*	*Impediments to Closure*	*Clean Up Status*
Chan's Service Station / Shell	726 Harrison Street	In October 1995 five USTs were removed and an unauthorized release was reported as a result of contamination detected in soil beneath the site. Additional site characterization detected significantly elevated levels of TPHg, benzene and MTBE in groundwater beneath and downgradient of the site. This site is part of a commingled plume and remedial action is proposed to remove contamination.	Gasoline	Site Assessment Incomplete; Inadequate Source Control; Other Impediments	Open - Site Assessment
Oakland Unified School District - Harper Building	314 10th Street	No site history available	Diesel, gasoline, polychlorinated biphenyls (PCBs), other	No cleanup actions exist	Open - Site Assessment
Mobil #10-MHG	160 14th Street	The three USTs were removed from operation in May 1986. Elevated petroleum hydrocarbons and volatile organic compounds were subsequently detected in soil and groundwater samples. The site was converted to a condominium building with parking and commercial on the lower floor. Soil vapor sampling and downgradient extent of groundwater contamination sampling requested.	Gasoline	Site assessment incomplete; procedural impediments; other impediments.	Open - Site Assessment
Salvation Army	601 Webster Street	Site is developed as a warehouse and distribution center for The Salvation Army. In November 2010, two USTs, a 10,000-gallon diesel and an 8,000-gallon gasoline tank, were removed. Discolored soil and obvious petroleum odor were noted. Samples recovered from the tank pit were reported to include up to 17,000 mg/kg TPHg and 300 mg/kg benzene. MTBE was not detected at the site.	Diesel, gasoline	No cleanup actions exist	Open - Site Assessment

Table 3.13-2: California State Water Board Open Clean-up Sites

Site Name	*Address*	*Description*	*Potential Contaminants of Concern*	*Impediments to Closure*	*Clean Up Status*
Bill Louie's Auto Service	800 Franklin Street	Contamination with TPHg, benzene, toluene, ethylbenzene and xylenes originated from the former USTs located in the northwest portion of the site and in the sidewalk along 8th Street. Downgradient site characterization was conducted in 2011 and 2012. Verification groundwater monitoring is currently underway. Currently a two-story building occupies the entire site. A plume of petroleum hydrocarbons extends northwest from the site.	Gasoline	Site assessment incomplete; inadequate source control; plume instability; other impediments	Open - Remediation
Lim Property Gas Station	250 8th Street	A gasoline service station formerly occupied the site. Ten USTs were removed in May 1992. Soil over-excavation, site investigation, and remedial actions have been conducted since. Further remediation is currently proposed for the site.	Gasoline	Inadequate source control; procedural impediments; other impediments	Open - Remediation
Vic's Automotive Service	245 8th Street	Seven underground storage tanks were removed from the site, and gasoline was observed on the water table. Various site investigation activities were conducted between 1995 and 2005. A permanent dual-phase extraction (DPE) system was installed and began operation in May 2007. Remediation and monitoring ongoing.	Gasoline	Site assessment incomplete; inadequate source control; other impediments	Open - Remediation

Table 3.13-2: California State Water Board Open Clean-up Sites

Site Name	*Address*	*Description*	*Potential Contaminants of Concern*	*Impediments to Closure*	*Clean Up Status*
Open Spills, Leaks, Investigation Open Clean-Up Sites					
City of Oakland Parking Lot	910 Broadway	Soil and groundwater investigations and geophysical survey conducted in 1992,1993 and 1998. Elevated contaminant concentrations noted at 25-feet below ground surface - source has not been identified. Soil samples identified hydrocarbons that did not match the diesel standard pattern. ACEH requested investigation into whether BART pumps in the vicinity of the site could influence groundwater flow.	Total petroleum hydrocarbons (TPH)	No cleanup actions exist. Notice to Comply letter sent to City of Oakland July 2009.	Open - Site Assessment
Seabreeze Yacht Center	280 6th Street	Case incorporated into DTSC's Oak St. to 9th Ave. project, Oakland (Envirostor ID 70000109).	Petroleum/fuels/oils	No cleanup actions exist.	Open - Remediation
Frank Mar Community Housing Project	383 13th Street	No site history available. Site currently used as a parking structure. No housing exists here.	None specified	No action ongoing.	Open - Inactive

Emergency Response and Evacuation Plans

As stated in the Safety Element of the City's General Plan, the City of Oakland has adopted the Standard Emergency Management System (SEMS), a framework for standardizing emergency response procedures in California. The Oakland Office of Emergency Services' SEMS emergency plan describes how City agencies would respond to declared emergencies in the City. The Plan must be routinely updated in accordance with Action PS-1.2 of the General Plan. The SEMS plan is largely procedural in nature.

The Safety Element maps evacuation routes for Oakland. Many of these routes cross the Planning Area, including the full extents of the following streets within the Planning Area: Broadway, Harrison Street, 14th Street, 12th Street/East 12th Street, International Boulevard, 7th Street/East 8th Street, Lakeside Drive, Lakeshore Avenue, and Lake Merritt Boulevard.

Wildland Fires

The Planning Area is entirely urbanized land, water, or developed and maintained parkland. It lies outside of the City's designated Wildfire Assessment District and is not at risk of any wildland fires.

REGULATORY SETTING

Hazardous materials and hazardous wastes are extensively regulated by federal, State, regional and local regulations, with the major objective of protecting public health and the environment. In general, these regulations provide definitions of hazardous substances; identify responsible parties; establish reporting requirements; set guidelines for handling, storage, transport, remediation, and disposal of hazardous materials and wastes; and require health and safety provisions for both workers and the public, such as emergency response and worker training programs. Sites which are subject to these regulations are identified on periodically-updated published lists at the federal, state, and local levels; the regulated sites include underground storage tank (UST) locations. The major regulations relevant to the proposed Plan are summarized in the following subsections.

Federal Regulations

The U.S. Environmental Protection Agency (EPA) is the lead agency responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations include the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Amendments enacted in 1984; the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA); and the Superfund Act and Reauthorization Act of 1986 (SARA). Federal statutes pertaining to hazardous materials and wastes are contained in the Code of Federal Regulations (CFR), Title 40.

State and Regional

The EPA has delegated much of its regulatory authority to the individual states. California hazardous materials laws incorporate federal standards, but are often more strict than federal laws. The primary state laws include the California Hazardous Waste Control Law (HWCL; the state equivalent of RCRA); and the Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA; the state equivalent of CERCLA). State hazardous materials and waste laws are contained in the California Code of Regulations, Titles 22 and 26.

The provisions in Government Code Section 65962.5, enacted in 1985, are commonly referred to as the "Cortese List." A site's presence on the “list” has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). The following State agencies, along with local enforcement agencies, compile and update “Cortese List” sites; the ones within the Planning Area are listed in **Tables 3.13-1** and **3.13-2:**

- The California Department of Toxic Substances (DTSC) of the California EPA enforces hazardous materials and waste regulations in California, in conjunction with the U.S. EPA. The DTSC is responsible for regulating the management of hazardous substances including the remediation of sites contaminated by hazardous substances.
- Regional Water Resources Control Boards (RWQCBs) are authorized by the State Water Resources Control Board (SWRCB) to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the RWQCBs authority to require groundwater investigations when the quality of groundwater or surface waters of the state are threatened and to remediate the site, if necessary.
- The State Department of Health Services regulates public drinking water wells. No hazards are identified in the Planning Area by that agency.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, California Highway Patrol (CHP), the Department of Fish and Game, the RWQCB, and the local fire department.

Fuel Storage Tanks

State laws governing underground storage tanks (USTs) and above ground storage tanks (ASTs) specify requirements for permitting, monitoring, closure, and cleanup. These laws are primarily found in the Health and Safety Code, and, combined with CCR Title 23, comprise the requirements of the State UST program. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. Generally speaking, the Alameda County Department of Environmental Health (ACDEH) is the local agency designated to permit and inspect USTs and to implement applicable regulations. The ACDEH also works in conjunction with the Oakland Fire Department. A closure plan for each UST to be removed must be prepared and submitted to the County prior to tank removal. ASTs standards and requirements are relatively similar to USTs however the main difference revolves around inspection of operation and the ability to visually detect leaks early on.

Hazardous Materials and Waste Handling

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely.

The Federal Resource Conservation and Recovery Act of 1976 (RCRA) established a “cradle-to-grave” regulatory program for governing the generation, transportation, treatment, storage and disposal of

hazardous waste. Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as Federal RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transport

The United States Department of Transportation regulates hazardous materials transportation on all interstate roads. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Soil and Groundwater Contamination

In Alameda County, remediation of contaminated sites is generally performed under the direction of DTSC, the RWQCB, and/or the ACDEH and/or the City. At sites where contamination is suspected or known to occur, the individual project applicant is required to perform a site investigation and draw up a remediation plan, if necessary. For typical development projects, site remediation is completed either before or during the construction phase of the project. Site remediation or development may also be subject to regulation by other agencies. For example, if dewatering of a hazardous waste site were required during construction, subsequent discharge to the sewer system could require a permit from the East Bay Municipal Utility District (EBMUD), and discharge to the storm water collection system could require an NPDES permit from the RWQCB.

The disposal of contaminated soil is regulated by the RWQCB and is regulated based on the concentrations of the chemical constituents that are present. Soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste when excavated. The California Code of Regulations, Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for ensuring worker safety in the workplace. Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known to be contaminated, a Site Safety Plan must be prepared to protect workers. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Airport Safety

The State's Airport Land Use Commission (ALUC) law (Public Utilities Code Article 3.5, State Aeronautics Act, Section 21661.5, Section 21670 et seq., and Government Code Section 65302.3 et seq.) is intended to ensure the orderly expansion of airports and the adoption of appropriate land use designations by local jurisdictions such that exposure to excessive noise and safety hazards near airports is minimized. The State Aeronautics Act (Public Utilities Code, Section 21670 et seq.) requires the preparation of an airport land use compatibility plan (ALUCP) for nearly all public-use airports in the state (Section 21675).

Local

Alameda County Hazardous Waste Management Plan

Pursuant to state law, each county is required to prepare a plan for the management of hazardous wastes produced within the county. Alameda County's plan is prepared by the Alameda County Waste Management Authority. The primary focus of the plan is the maximum feasible reduction of hazardous waste generated in the county in order to minimize the number of hazardous-waste management facilities needed to manage that waste.

Certified Unified Program Agency (CUPA) Program

In City of Oakland Fire Department's Fire Prevention Bureau administers the Certified Unified Program Agency (CUPA) program, coordinating and enforcing the numerous local, state, and federal hazardous materials management and environmental protection programs within the City of Oakland. CUPA offers businesses several benefits: single point of contact for permitting; billing and inspections; uniformity and consistency in enforcement of regulations; and a single fee system incorporating all of the fees from multiple programs.

Facilities that store, generate, and/or use hazardous materials above threshold amounts must submit compliance documentation, obtain a CUPA permit annually, and pass periodic inspections to ensure safe operation and regulatory compliance. The program areas covered by the Oakland CUPA are listed below.

- *Hazardous Materials Business Plan (HMBP)*: A management and inventory plan for emergency response and community "right to know" purposes, that must be filed with the Oakland CUPA by all facilities that store more than 30 gallons, 500 pounds, and/or 220 cubic feet aggregate of hazardous materials onsite.
- *Hazardous Waste Generators (HWG)*: The required tracking of the generation, disposal, and/or treatment of hazardous waste from the "cradle to the grave."
- *California Accidental Release Program (CalARP)*: A permit for the development of a Risk Management Plan to minimize the dangers related to the storage and use of large quantities of highly hazardous materials.
- *Hazardous Waste Treatment/Tiered Permitting:* Permitting and tracking the onsite treatment of hazardous waste.
- *Underground Storage Tanks (UST)*: Plan review, permitting, and monitoring required for the use of underground storage tanks to store and/or dispense hazardous liquids.

- *Aboveground Storage Tanks (AGT)*: Plan review, permitting, and spill prevention required for the use of aboveground storage tanks to store and/or dispense hazardous liquids.
- *California Fire Code (CFC)*: All CFC requirements pertaining to the storage and use of flammable and hazardous materials.
- *Redevelopment of Sites with Historical Contamination*: Sites in Oakland that have received regulatory closure and/or have actual or potential contamination must be evaluated prior to redevelopment to assess human and environmental health and safety.
- *Industrial and Commercial Stormwater Protection*: All commercial facilities must practice proper stormwater best management practices to prevent pollution of storm drains, creeks, lakes, and the Bay.

Multi-Jurisdictional Local Hazard Mitigation Plan

In Oakland, hazard mitigation planning is carried out collectively at the regional level owing to the proximity of different cities and their joint exposure to earthquakes and other hazards, including flooding, wildfires, and hazardous materials. ABAG is the lead agency on the multi-jurisdictional Local Hazard Mitigation Plan (MJ-LHMP) for the San Francisco Bay Area. The most recent MJ-LHMP was adopted in 2005. The MJ-LHMP is complemented by the City of Oakland's Annex, also adopted in 2005. Both the MJ-LHMP and the Oakland Annex are informed by the detailed analysis of hazards that was done for the update, in 2004, of the City's General Plan Safety Element. The Multi-Jurisdictional Local Hazard Mitigation Plan is currently being updated. The City of Oakland's Emergency Management Board evaluates the Annex and the Safety Element at least once a year to determine whether updates are warranted by changing legal or environmental conditions.

Oakland International Airport Land Use Compatibility Plan

Alameda County has established an airport land use commission (ALUC), in accordance with state law. The Oakland International Airport Land Use Compatibility Plan is the primary document used by the Alameda County ALUC to help promote compatibility between Oakland International Airport (OAK) and its environs. The Plan is used by the Alameda County ALUC in fulfilling its duty to review airport and land use development proposals within the airport influence area or referral area associated with the airport.

City of Oakland Municipal Code

The City of Oakland Municipal Code includes regulations for the handling of hazardous materials in the City. Title 8, Chapter 8.12 of the Oakland Municipal Code adopts California Health and Safety Code laws (Health and Safety Code Section 25500 et seq.) related to hazardous materials.

City of Oakland General Plan

The Safety Element of the Oakland General Plan contains the following policies regarding hazards and hazardous materials and emergency response that may apply to development under the proposed Plan.

Policy HM-1: Minimize the potential risks to human and environmental health and safety associated with past and present use, handling, storage and disposal of hazardous materials.

Policy HM-2: Reduce the public's exposure to toxic air contaminants through appropriate land use and transportation strategies.

Policy HM-3: Seek to prevent industrial and transportation accidents involving hazardous materials and enhance the city's capabilities to response to such incidents.

Policy PS-1: Maintain and enhance the city's capacity to prepare for, mitigate, respond to, and recover from disasters and emergencies.

The following policy statements from the Open Space, Conservation and Recreation (OSCAR) Element of the General Plan regarding hazards and hazardous materials may apply to the proposed Plan:

Policy CO-1.2: Soil Contamination and Hazards. Minimize hazards associated with soil contamination through the appropriate storage and disposal of toxic substances, monitoring of dredging activities, and clean-up of contaminated sites. In this regard, require soil testing for development of any site (or dedication of any parkland or community garden) where contamination is suspected due to prior activities on the site.

Policy REC-4.2: Environmental Responsibility. Encourage maintenance practices which conserve energy and water, promote recycling, and minimize harmful side effects on the environment. Ensure that any application of chemical pesticides and herbicides is managed to avoid pollution of ground and surface waters.

Oakland Estuary Policy Plan

The Oakland Estuary Plan overlaps with the Planning Area where it extends south of I-880. The Estuary Plan includes the following policy:

OAK-1.3: **Undertake remediation of contaminants in conjunction with development and/or improvement of relevant sites.** Typical of many waterfront areas that have historically been in intensive industrial use, contamination has been documented within this district. It will be a consideration in redevelopment of the sites identified. To date, parties have undertaken initial efforts to characterize surface soil, subsurface soil and groundwater within the Oak to Ninth area. Further investigations should be undertaken to more accurately characterize contamination, and to determine the most appropriate and cost-effective remediation methods that can achieve reuse objectives for this area in a timely and coordinated fashion. The level and type of soil and groundwater cleanup should be commensurate with the recommended re-use of the affected sites.

City of Oakland CEQA Guidance

City of Oakland CEQA Thresholds/Criteria of Significance Guidelines (May 22, 2013), Appendix B includes guidance on the "Cortese List." The list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 is commonly referred to as the "Cortese List." The "Cortese List" is located on the California Environmental Protection Agency's website at: http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm. The list on Cal EPA's website is a compilation of the following lists:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database.
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker database.
- List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit (PDF).
- List of "active" CDO and CAO from Water Board (MS Excel, 632 KB).
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

Each of these lists meets the "Cortese List" requirements. A site listed on any of these lists is considered to be listed on the "Cortese List." Pursuant to Section 15300.2 of the CEQA Guidelines, a categorical exemption shall not be used for a project located on a site included on the "Cortese List."

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-35. Hazards Best Management Practices[7]

Prior to commencement of demolition, grading, or construction

The project applicant and construction contractor shall ensure that Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

a. Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;

b. Avoid overtopping construction equipment fuel gas tanks;

c. During routine maintenance of construction equipment, properly contain and remove grease and oils;

d. Properly dispose of discarded containers of fuels and other chemicals;

e. Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building; and

f. If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall

[7] These Development Standards apply to ALL construction projects.

be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's SCA, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

SCA-61. Site Review by the Fire Services Division[8]

Prior to the issuance of demolition, grading or building permit

The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.

SCA-62. Phase I and/or Phase II Reports

Prior to issuance of a demolition, grading, or building permit

Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

SCA-63. Lead-Based Paint/Coatings, Asbestos, or PCB Occurrence Assessment

Prior to issuance of any demolition, grading or building permit

The project applicant shall submit a comprehensive assessment report to the Fire Prevention Bureau, Hazardous Materials Unit, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.

SCA-64. Environmental Site Assessment Reports Remediation

Prior to issuance of a demolition, grading, or building permit

If the environmental site assessment reports recommend remedial action, the project applicant shall:

a. Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.

b. Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.

[8] These Development Standards apply (a) to ALL projects that include the redevelopment or reuse of historically industrial or commercial buildings; (b) if the site has been identified in City records for hazardous materials, such as the Permit Tracking System (PTS), OR (c) if the site has been identified on the State Cortese List [NOTE: PRESENCE ON CORTESE LIST PRECLUDES USE OF A CATEGORICAL EXEMPTION].

c. Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

SCA-65. Lead-based Paint Remediation

Prior to issuance of any demolition, grading or building permit

If lead-based paint is present, the project applicant shall submit specifications to the Fire Prevention Bureau, Hazardous Materials Unit signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.

SCA-66. Other Materials Classified as Hazardous Waste

Prior to issuance of any demolition, grading or building permit

If other materials classified as hazardous waste by State or federal law are present, the project applicant shall submit written confirmation to Fire Prevention Bureau, Hazardous Materials Unit that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.

SCA-67. Health and Safety Plan per Assessment

Prior to issuance of any demolition, grading or building permit

If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.

SCA-68. Best Management Practices for Soil and Groundwater Hazards

Ongoing throughout demolition, grading, and construction activities

The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards.

a. Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland.

b. Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit

groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources

c. Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.

SCA-69. Radon or Vapor Intrusion from Soil or Groundwater Sources[9]

Ongoing

The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.

SCA-74. Hazardous Materials Business Plan[10]

Prior to issuance of a business license

The project applicant shall submit a Hazardous Materials Business Plan for review and approval by Fire Prevention Bureau, Hazardous Materials Unit. Once approved this plan shall be kept on file with the City and will be updated as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle the materials and provides information to the Fire Services Division should emergency response be required. The Hazardous Materials Business Plan shall include the following:

a. The types of hazardous materials or chemicals stored and/or used on site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.

b. The location of such hazardous materials.

c. An emergency response plan including employee training information.

d. A plan that describes the manner in which these materials are handled, transported and disposed.

[9] These Development Standards apply to ALL construction projects that include 1) habitable space below the ground AND/OR 2) the redevelopment or reuse of historically industrial or commercial buildings OR 3) Soil and/or Groundwater Hazards.

[10] These Development Standards apply to ALL projects that involve the handling, storage, or transportation of hazardous materials on-site.

SCA-82. Erosion, Sedimentation, and Debris Control Measures[11]

Prior to issuance of demolition, grading, or construction-related permit

The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

BASIC[12]

a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.

b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.

d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

e. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

[11] These Development Standards apply to ALL projects that involve a Creek Protection Permit.

[12] *Applies to ALL construction sites.*

i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, storm drains.

l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).

m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.

n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a FinalEIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element would largely occur as infill, in an urbanized and built-out city. The Housing Element EIR determined that impacts associated with hazardous materials transport, use and disposal would be less than significant and compliance with the Municipal Code would further reduce impacts. Compliance with the City's SCAs, and General Plan Policies, as well as Chapter 8.42 of the Municipal Code would ensure that hazardous building materials and/or contaminated soils and/or groundwater would be properly identified, handled, removed, and/or remediated. Compliance with SCA 67: Health and Safety Plan per Assessment would protect the health and safety of construction workers on sites where hazardous materials have been identified. Compliance with SCA 67 would not only protect workers on the site, but would also mitigate impacts beyond the site, including potential impacts on sensitive receptors at nearby schools. Compliance with SCA 35: Hazards Best Management Practices would reduce the risk of construction-related soil and groundwater contamination. As a result, the risk of an upset or accident resulting in the release of hazardous materials during demolition or construction resulting from implementation of the Housing Element would be less than significant.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The proposed Plan would have a significant impact on the environment if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors [NOTE: Per the BAAQMD CEQA Guidelines, evaluate whether the proposed Plan would result in persons being within the Emergency Response Planning Guidelines (ERPG) exposure level 2 for acutely hazardous air emissions either by siting a new source or a new sensitive receptor. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers];
4. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the "Cortese List") and, as a result, would create a significant hazard to the public or the environment;
6. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions;
7. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the Planning Area;
8. Be located within the vicinity of a private airstrip, and would result in a significant safety hazard for people residing or working in the Planning Area;
9. Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
10. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

METHODOLOGY AND ASSUMPTIONS

Hazardous Materials

An electronic file search was conducted in August 2012 to identify any historic or current hazardous sites within the Planning Area. Environmental databases searched include EnviroStor maintained by DTSC and the GeoTracker database maintained by the State Water Resources Control Board.

Wildfire

The Fire Threat Map for the Planning Area was downloaded from the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP) website to conduct analysis on potential wildfire risks in the Planning Area.

Airport Safety

The 2010 Oakland International Airport Land Use Compatibility Plan was reviewed for land use and safety implications for the Planning Area.

SUMMARY OF IMPACTS

Implementation of the proposed Station Area Plan would include new development of high-density or high-intensity urban uses on up to 33 sites, including projects that are planned or permitted. These proposed improvements have the potential to expose people and the environment to hazardous materials through a variety of means, summarized below.

Impact HAZ-1 – Hazardous Materials Transport, Use or Disposal

Future commercial land uses would likely involve the use, storage, transportation, and disposal of hazardous materials such as paints, solvents, cleaning agents, and other chemicals, which could create a hazard for area residents, workers and visitors. This potential hazard is expected to be less than significant, with implementation of existing regulations administered by the City's Fire Prevention Bureau, including the requirement for a Hazardous Materials Business Plan as reinforced by Standard Condition of Approval 74.

Impact HAZ-2 – Hazardous Materials Upset and Accident Conditions

Construction projects and other activities may involve the use of hazardous materials, which could be accidentally released, exposing people and the environment. This potential impact is less than significant with enforcement of federal and state laws governing the use, management, and disposal of hazardous materials, and the City of Oakland's Standard Condition of Approval (SCA) 35, requiring the use of Best Management Practices.

Excavation and site work as part of new development could result in disturbance and exposure of known or unknown contaminants. The City of Oakland's SCA include a requirement for all construction sites to take all appropriate measures to protect human health and the environment if potential contamination is found. On sites that have been identified in City records for hazardous materials, additional, strict SCA apply, reducing this potential impact to less than significant.

Demolition of existing structures, especially older structures where hazardous building materials were commonly used in construction, could also expose construction workers, the public, or the environment to these materials. This potential hazard is reduced to less than significant by adherence to federal and state laws, in particular OSHA and Cal-OSHA, as well as the City's SCA that relate specifically to projects that include the redevelopment or reuse of historically industrial or commercial buildings and to sites that are identified on the "Cortese list."

Impact HAZ-3 – Hazardous Materials Near Sensitive Receptors

The Planning Area is a dense, urbanized environment, and contaminated sites are in the vicinity of substantial numbers of housing units, schools, and parks, with more development proposed under the Station Area Plan. The potential impacts of hazardous materials on sensitive receptors is less than significant because projects will be required to comply with all existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor, as well as requirements reinforced by Standard Condition of Approval 74.

Impact HAZ-4 – Hazardous Materials Near Schools

The Planning Area includes eight public or charter schools enrolling close to 2,000 students. Laney College serves another 13,000 post-secondary students. All of the schools are within one-quarter mile of contaminated sites. The potential impacts of hazardous materials on schools and sensitive receptors is less than significant because projects will be required to comply with all existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor, as well as requirements reinforced by Standard Condition of Approval 74.

Impact HAZ-5 – Development on Contaminated Sites

The Planning Area includes 16 hazardous materials sites that are on the State's "Cortese list," including three clean-up sites under Department of Toxic Substances Control authority and 13 under authority of the Regional Water Quality Control Board. Five of these clean-up sites are identified under the Station Area Plan as "opportunity sites," meaning development is considered likely. Any development of these sites will be required to adhere to all clean-up requirements as stipulated by the State agency with jurisdiction, and will also be required to comply with all City of Oakland SCA that apply specifically to sites with known contamination. Enforcement of all requirements will reduce this potential impact to a less than significant level.

Impact HAZ-6 – Emergency Access

Most of the Planning Area has a traditional street grid, while the central portion includes large "super blocks" around Laney College, the Kaiser Auditorium, and Lake Merritt Channel. The Station Area Plan would not vacate any street or otherwise result in streets exceeding 600 feet in length with fewer than two emergency response routes, making this potential impact less than significant.

Impact HAZ-7 –Emergency Response and Evacuation

The Station Area Plan proposes significant streetscape improvements, including lane reductions for vehicles. These changes will not result in any change with regard to access by emergency vehicles, while accessibility for pedestrians and cyclists would be enhanced. The proposed Plan would have no potential impact on emergency response or evacuation plans. The potential impact on emergency access and emergency response would be less than significant.

Cumulative Impact HAZ-8 - Hazards

The increase population and employment caused by future development in the Planning Area together with other development projects in Oakland could result in increased risk of exposure to hazards. Impacts

could occur through transport of hazardous materials and waste, inadvertent release of hazardous materials from contaminated sites where new development occurs or from building materials where existing buildings are rehabilitated or demolished, and potential accidents that require emergency response. With adherence to all existing regulations, the cumulative impact will be less than significant. The proposed Plan's contribution to this potential impact is not cumulatively considerable.

Areas of No Impact

Airport Safety (Impact Thresholds #7 and 8)

The Planning Area is located more than two miles from Oakland International Airport (OAK), the nearest airport, and outside the Airport Influence Area (AIA) as defined in the 2010 Oakland International Airport Land Use Compatibility Plan. Development under the Station Area Plan would not interfere with any airport use plan or otherwise create an airport-related safety hazard.

Wildland Fires (Impact Threshold #10)

All land use changes proposed in the Station Area Plan would take place on infill sites within a highly urbanized part of Oakland, not adjacent to any wildland areas. Nearly all of the Planning Area is identified on the Department of Forestry and Fire Protection's Fire Threat map as a "moderate" fire threat area, the lowest threat classification. A small portion of Lake Merritt Channel, as well as Lake Merritt, is mapped as a "non-fuel" area (i.e., water bodies).[13] The Planning Area is served by the City of Oakland Fire Department, and all proposed new development would be built to current fire safety code requirements (see Section 3.6 Public Services for more detail). The Plan is not expected to increase the threat of wildfire hazards, and no adverse impact is expected.

IMPACTS

Impact HAZ-1

New development under the proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. *(Less than Significant)*

Future commercial land uses under the proposed Station Area Plan would likely involve the use, storage, transportation, and disposal of hazardous materials such as paints, solvents, cleaning agents, and other chemicals. Improper handling and accidents involving these substances could expose workers, residents, and the environment to hazardous materials.

The use, transportation, storage, and disposal of hazardous materials are subject to federal, State, and regional regulations. Hazardous materials would be required to be transported under US DOT, California Highway Patrol, and Caltrans regulations, including driver-training requirements, load labeling procedures, and container specifications.

The Planning Area would be subject to hazardous materials programs administered under the Alameda County Waste Management Plan, and the requirements of the Fire Prevention Bureau, Oakland's

[13] California Department of Forestry and Fire Protection Fire Threat Map website, http://frap.cdf.ca.gov/data/frapgismaps/download.asp, accessed August 16, 2012.

Certified Unified Program Agency (CUPA). Under CUPA, facilities that store, generate, and/or use hazardous materials above threshold amounts must submit compliance documentation, obtain a CUPA permit annually, and pass periodic inspections to ensure safe operation and regulatory compliance, as described in more detail in the Regulatory Setting section.

The City of Oakland's SCA also aim to ensure safety from hazardous materials. Under SCA 74, all projects that will involve the handling, storage, or transportation of hazardous materials are required to submit a Hazardous Materials Business Plan (HMBP) detailing the type of hazardous materials present, their location, an emergency response plan, and a plan that describes how materials are to be handled, transported and used, to the City's Fire Prevention Bureau. Adherence to existing regulations reduces this potential impact to a level that is less than significant.

Mitigation Measures

None required.

Impact HAZ-2

Development under the proposed Plan would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (*Less than Significant*)

Contaminants Released during Construction and Other Activities

Construction projects and other activities may include activities involving the use of fuels, oils, lubricants, solvents, and glues. Inadvertent release of these materials could adversely impact soil, surface waters, or groundwater quality, and as a result could expose residents and workers to hazards.

Federal and state laws govern the use, management, and disposal of hazardous materials. In Oakland, these regulations are reinforced by Standard Condition of Approval (SCA) 35: Hazards Best Management Practices. Under SCA 35, the contractor must demonstrate how Best Management Practices are being used in the construction process, including following manufacturers' recommendations for use, storage, and disposal of chemicals; properly containing and removing grease and oils from equipment; and properly disposing of discarded containers. Adherence to these existing regulations makes this potential impact less than significant.

Contaminants Exposed during Excavation

New construction under the Station Area Plan will require excavation and site work to build foundations and lay underground utilities. While some development sites may be on the State's "Cortese" list because of known contaminants (see Impact HAZ-4), in other cases there could be unknown contaminants that could be exposed during excavation. Disturbed contaminated soils could expose construction workers and the public to contaminants.

The City of Oakland's Standard Condition of Approval (SCA) 35 would apply to all construction sites. Under SCA 35: Hazards Best Management Practices, if potential soil or groundwater contamination or USTs, abandoned drums, or other hazardous materials or wastes are encountered during construction, the contractor must take all appropriate measures to protect human health and the environment. Where construction occurs on a site that has been identified in City records for hazardous materials, additional,

strict SCA apply. These include completion of a Phase I Site Assessment Report (SCA 61); identification of needed remedial actions (SCA 64); Best Management Practices for Soil and Groundwater Hazards (SCA 68); and documentation of any radon or vapor intrusion from soil or groundwater, with implementation of recommended remediation (SCA 69). Sites on the "Cortese list" would also be subject to site cleanup regulations as required by a designated regulatory agency, such as the SWRCB or DTSC; these are discussed in more detail under Impact HAZ-6. Compliance with these existing, strict regulations would make this potential impact less than significant.

Contaminants Exposed during Demolition

Demolition of existing structures, especially older structures where hazardous building materials were commonly used in construction, could expose construction workers, the public, or the environment to these materials. The level of potential impact is dependent upon the age, construction, and building materials in each building and the protocols employed for demolition. However, there are established measures that certified contractors commonly use to contain, store, and dispose of these hazardous materials in a manner which limits exposure. The first step towards appropriate handling and demolition is conducting thorough surveys to identify the presence of these materials. Asbestos-containing materials (ACMs) are regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. Cal-OSHA also regulates worker exposure to lead-based paint. Potential exposure to these hazardous building materials can be reduced through appropriate use of personal protective equipment, isolation and containment of work areas, and placement of waste in approved transport containers.

Both the federal OSHA and Cal-OSHA regulate worker exposure during construction activities that disturb lead-based paint. The Interim Final Rule found in 29 CFR 1926.62 covers construction work in which employees may be exposed to lead during such activities as demolition, removal, surface preparation for repainting, renovation, cleanup, and routine maintenance. The OSHA-specified compliance includes respiratory protection, protective clothing, housekeeping, special high-efficiency filtered vacuums, hygiene facilities, medical surveillance, and training. No minimum level of lead is specified to activate the provisions of this regulation.

Adherence to existing regulations is reinforced by City of Oakland SCA. SCA 61 through 68 apply to all projects that include the redevelopment or reuse of historically industrial or commercial buildings, and to sites that are identified in City records or on the State's "Cortese list" for hazardous materials. SCA 63 requires an assessment of the presence of ACMs, lead-based paint, or any other hazardous building materials, while SCA 64 and 65 specify remediation requirements. SCA 67 requires a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation, and transport and disposal. These existing regulations render this impact to a level that is less than significant.

Mitigation Measures

None required.

Impact HAZ-3

New development under the proposed Plan would not create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors. ***(Less than Significant)***

New development would be required to comply with all federal, State, and local hazardous materials regulations, as administered by the Fire Department's Fire Prevention Bureau (the CUPA for the City of Oakland). These regulations include the California Accidental Release Prevention Program (CalARP), based on Section 112(r) of the Clean Air Act. This program requires any business that handles more than threshold quantities of a Regulated Substance (RS) to develop a Risk Management Plan (RMP) to prevent or mitigate releases that could have off-site consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls. In Oakland, businesses that handle any RS within 1,000 feet of a sensitive receptor, including residential areas, schools, public gathering places, or civil facilities, may be required to submit a hazardous materials assessment report and remediation plan (HMARRP). Additionally, those handling or storing hazardous materials would be required to prepare a Hazardous Materials Management Plan (HMMP) and Hazardous Materials Business Plan (HMBP) as required by Alameda County and the City's SCA 74: Hazardous Materials Business Plan. Completing these requirements would reduce to a less than significant level the potential for an unacceptable release of hazardous materials within one-quarter mile of a school or in the vicinity of other sensitive receptors, including residential uses and parks.

Mitigation Measures

None required.

Impact HAZ-4

New development under the proposed Plan would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter-mile of an existing or proposed school. ***(Less than Significant)***

The Planning Area includes four Oakland Unified School District (OUSD) schools—Lincoln and La Escuelita Elementary Schools, Dewey and MetWest High Schools—as well as four charter schools, enrolling a total of 1,820 students in 2010-11. These schools are as follows:

- Lincoln Elementary School, located at 225 11th Street, serves 635 students and is currently enrolled over its capacity of 576 students.
- La Escuelita Elementary and MetWest High School are to be co-located at the new Downtown Educational Complex on East 10th Street between 2nd and 4th Avenues. The schools enrolled 250 and 151 students, respectively, in 2010-11. At the DEC, the schools have the capacity for 360 and 180 students, respectively.
- Dewey Academy, at 1111 2nd Avenue, is a continuation high school for 16- to 18-year-olds. As of 2010-11 the school had 273 students.
- Oakland Charter High School (OCHS) serves approximately 150 high school students and 40 middle school students, and is expected to approximately double in size. The school is located at 345 12th Street at Webster.

- The American Indian Public Charter School II (APICES II) serves 170 middle students and is projected to grow to 775 by 2016-17. The school is located at 171 12th Street, at Madison.
- Envision High School currently enrolls about 320 students and is seeking to expand to 400. The school is currently located on the ninth floor of 436 14th Street between Franklin and Broadway and has expressed interest in OUSD's Lakeview facility outside the Planning Area.
- Yu Ming Charter School enrolled 104 students in 2010-11 in its Mandarin-immersion K-8 program located at 321 10th Street between Harrison and Webster. The school is seeking a larger facility to serve 450 students by 2018-19.

Laney College is located on approximately 60 acres in the Planning Area, and serves over 13,000 students. All schools are shown on **Figure 3.13-2**, along with contaminated sites.

The Planning Area also contains residential uses and parks, which are also considered sensitive receptors for CEQA purposes, and as described below, development under the proposed Station Area Plan is expected to result in a substantial amount of new housing, as well as additional park land.

The proposed Station Area Plan identifies 33 "opportunity sites" where new development is most likely to occur over the next 20 years. Some of these sites are directly across the street from Planning Area schools, and nearly all sites in the highly-urbanized Planning Area are within a quarter mile of one of these schools. Expected future uses are primarily residential, retail, and office—and not auto service or industrial uses—and so the storage or use of hazardous materials is likely to be limited.

New development would be required to comply with all federal, State, and local hazardous materials regulations, as administered by the Fire Department's Fire Prevention Bureau (the CUPA for the City of Oakland), as described under Impact HAZ-3. Additionally, those handling or storing hazardous materials would be required to prepare a Hazardous Materials Management Plan (HMMP) and Hazardous Materials Business Plan (HMBP) as required by Alameda County and the City's SCA 74: Hazardous Materials Business Plan. Completing these requirements would reduce to a less than significant level the potential for an unacceptable release of hazardous materials within one-quarter mile of a school or in the vicinity of other sensitive receptors, including residential uses and parks.

Mitigation Measures

None required.

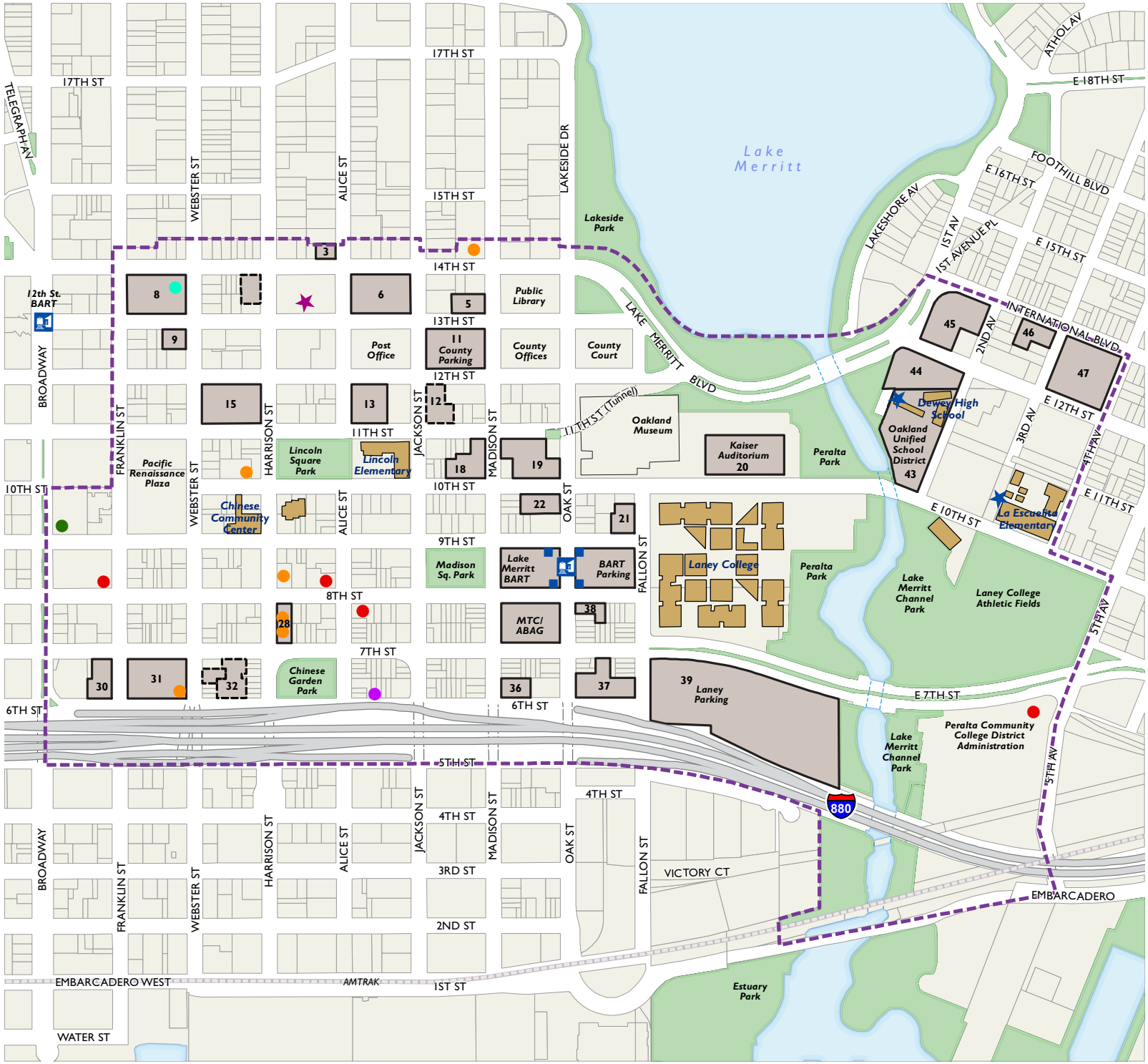

Figure 3.13-2
Contaminated Sites, Opportunity Sites, and Schools

- BART Station Entrance
- BART Station

Department of Toxic Substance Control Clean Up Sites

- School Investigation Site
- State Response

California State Waterboard Open Sites

- (LUST) Cleanup Sites, Open - Remediation
- (LUST) Cleanup Sites, Open - Site Assessment
- (LUST) Cleanup Sites, Open-Verification Monitoring
- Other Cleanup Sites, Open - Inactive
- Other Cleanup Sites, Open - Remediation
- Other Cleanup Sites, Open - Site Assessment

- # Opportunity Sites
- Schools/College
- Existing & Planned Parks
- Planning Area

0 100 300 500 750 1,000
FEET

Source: City of Oakland and Dyett and Bhatia, 2009.

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Impact HAZ-5

New development under the proposed Plan located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 (i.e. the "Cortese List,") would not as a result create a significant hazard to the public or the environment. ***(Less than Significant)***

The Planning Area includes several hazardous materials sites on that are on the State's "Cortese list," summarized below. The conditions at these sites could potentially expose construction workers and future residents, workers, and visitors to hazardous materials, which pose a potentially significant threat to human health and the environment. These are described in more detail in the Environmental Setting section.

Five of these "Cortese list" sites overlap with opportunity sites identified in the Station Area Plan as likely to be developed with new buildings and uses during the planning period. These are shown on **Figure 3.13-2**, and summarized below.

Opportunity Site 8. The Frank Mar Community Housing Project site, at 383 13th Street, is currently a structured parking lot and is listed as a SLIC site in the Water Boards database. No site history is available, and no cleanup action is ongoing. The full-block site is identified as an opportunity site in the Station Area Plan, and projected to be developed as a high-rise building with retail, offices, and housing as well as publicly accessible open space.

Opportunity Site 28. Two LUST sites identified by the Water Boards—the "Oakland Auto Parts" site at 706 Harrison Street and the "Chan's Service Station/Shell" site at 726 Harrison—are also part of an opportunity site identified by the Station Area Plan. Both currently have open clean-up projects underway, to address hydrocarbon contamination of soils and groundwater. Contamination from these sites contributes to a "commingled plume," and remediation is proposed. Site assessment is still underway. The Station Area Plan projects that these sites will be developed in the future with a mix of retail, offices and housing.

Opportunity Site 31. The Salvation Army warehouse at 601 Webster Street was added as a clean-up site under Water Boards jurisdiction in November 2010 when two USTs were removed and samples found contamination with diesel and gasoline constituents. No cleanup actions are yet reported.

Opportunity Site 43. The Dewey Downtown School site at 1102 2nd Avenue has been identified as potentially contaminated with Benzo(a)pyrene. The DTSC concluded that soil and groundwater have not been affected, and no remedial action is required. This site has been identified in the Station Area Plan as a potential site for mixed-use development including residential, ground-floor retail, and an open space setback along Lake Merritt Channel.

Various federal, State, and regional regulations govern the proper storage, handling, and transport of hazardous materials, as described in the preceding impact discussions. In addition, developers wishing to develop "Cortese list" sites would have to apply for permits and perform cleanup and remediation actions required by the appropriate overseeing agency—the Regional Water Quality Control Board or the Department of Toxic Substances Control (DTSC). DTSC has authority to implement hazardous waste and hazardous substance laws in the California Code of Regulations, as well as the federal equivalents of these laws. RWQCB has authority under the Porter-Cologne Water Quality Control Act to require

groundwater investigations and remediation as necessary. Implementation of these regulations would reduce the potential impacts from hazardous sites to a less than significant level.

Mitigation Measures

None required.

Impact HAZ-6

New development under the proposed Plan would not result in fewer than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions. ***(Less than Significant)***

The Planning Area is a fully urbanized part of Oakland characterized by a traditional street grid over the western and eastern portions. The street grid is interrupted by a series of "super blocks" in the center of the Planning Area that include Laney College, the Kaiser Auditorium, and the Oakland Museum of California, as well as Lake Merritt Channel. All public streets in the Planning Area are fully usable by emergency vehicles and could be used for emergency evacuation. The existing grid of public streets is proposed to be maintained under the Station Area Plan. No streets longer than 600 feet would be created that would have fewer than two emergency access routes, making this potential impact less than significant.

Mitigation Measures

None required.

Impact HAZ-7

New development under the proposed Plan would not fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. ***(Less than Significant)***

The Station Area Plan is intended to guide capital improvements in the circulation system for the next 25 years in a way that supports commercial revitalization and transit-oriented infill development. Streetscape improvements such as curb bulb-outs, lighting, special paving, wayfinding, and trees, would be the most widespread change. **Figure 2.3-3** in Chapter 2 (Project Description) show the Station Area Plan's Short-Term and Long-Term Circulation Improvement Strategy. Several Planning Area streets are proposed for restriping to better accommodate bicycles and pedestrians. Lane reductions for these purposes are proposed for certain streets, but no streets would be closed permanently to traffic or limited to fewer than two lanes. Two one-block segments of Alice Street and one two-block segment of Fallon Street are proposed to be redesigned as "festival streets" that could be closed temporarily to traffic to provide additional public space for special events. However, sufficient alternative routes through the area are available to ensure that any temporary roadway closures would not impact emergency access.

It is important to emphasize that the Plan does not propose closing or vacating any public streets. Access by emergency vehicles will remain unchanged, and use of streets for evacuation will not be impeded.

Construction activities that would result in temporary road closures would include traffic control plans to ensure emergency vehicle access. This potential impact is less than significant.

Mitigation Measures

None required.

Cumulative Impact HAZ-8

New development following the proposed Plan, combined with past, present, and reasonably foreseeable maximum development in Oakland, would not create a significant hazard to the public or the environment with regard to hazardous materials and other hazards. ***(Less than Significant Cumulative Impact, Project Contribution Not Cumulatively Considerable)***

The increased population and employment caused by future development in the Planning Area together with other development projects in Oakland could result in the increased use of hazardous household and commercial materials, and a cumulative increase in risk associated with accidental release of hazardous materials into the environment. These impacts could occur through transport of hazardous materials and waste, inadvertent release of hazardous materials from contaminated sites where new development occurs or from building materials where existing buildings are rehabilitated or demolished, and potential accidents that require emergency response.

Federal, State, and City of Oakland regulations would apply to all new development, including development facilitated by the Station Area Plan and recent, current, and reasonably foreseeable maximum development as represented by the City's Active Major Development Projects list. All new development is required to comply with Standard Condition of Approval (SCA) 74: Hazardous Materials Business Plan, SCA 35: Hazardous Materials Best Management Practices, and federal and State workplace safety regulations, while any development of a site on the "Cortese list" must comply with the clean-up requirements of the agency with jurisdiction. The proposed Plan will not cause any reduction in emergency access, or in any way interfere with emergency response or evacuation plans. With adherence to existing regulations at the federal, state, and local level, this potential cumulative impact is less than significant, and the Plan's contribution is not cumulatively considerable.

Mitigation Measures

None required.

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3.14 Hydrology and Water Quality

This section provides an overview of the existing hydrology and water quality in the Planning Area and surrounding environment, the regulatory framework, an analysis of impacts on hydrology and water quality that would result from implementation of the project, and mitigation measures where appropriate.

Environmental Setting

PHYSICAL SETTING

Climate

The climate of the Bay Area is characterized as dry-summer subtropical (often referred to as Mediterranean), with cool wet winters and relatively warm dry summers. The mean annual rainfall in the City of Oakland for the period between 1970 and 2006 was approximately 23.5 inches, with the vast majority of rainfall between October and May.[1]

Hydrology and Surface Waters

Surface water features in the Planning Area include Lake Merritt, the Lake Merritt Channel, and the Oakland Estuary. Runoff from the Planning Area ultimately flows to San Francisco Bay, via the Oakland Estuary or by way of Lake Merritt.

Lake Merritt is a 140-acre tidal estuary formed in a drowned valley and joined to the Oakland Estuary and San Francisco Bay by the Lake Merritt Channel. The Lake has an average depth of seven to eight feet, has 3.4 miles of shoreline, is classified as a Wildlife Refuge, and drains a watershed of approximately 4,650 acres.[2]

The Oakland Estuary was a tidal slough that originated in a vast marsh that stretched from Lake Merritt to Brooklyn Basin. At the turn of the century, the estuary was dredged, separating Oakland from Alameda and forming the estuary as it is today. Lake Merritt remains hydrologically connected to the estuary through tidal gates at the 7th Street Pump Station. The estuary is influenced by both freshwater and

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[1] LSA Associates, *Measure DD Implementation Project EIR,* 2007, citing Brown, William M. III, *Historical Setting of the Storm: Perspectives on Population, Development, and Damaging Rainstorms in the San Francisco Bay Region, in Landslides, Floods, and Marine Effects of the Storm of January 3-5, 1982, in the San Francisco Bay Region, California, Stephen D. Ellen and Gerald F. Wieczorek, Eds., U.S. Geological Survey Professional Paper 1434,* 1988.

[2] LSA Associates, 2007, citing *California's Critical Coastal Area, State of the CCAs Report, June 15, 2006,* accessed 2/13/07 at www.coastal.ca.gov, and Carter, G., et al., *Water Quality Investigations at Lake Merritt in Oakland, California*, American Geophysical Union, 2005.

marine water. The estuary receives freshwater inflow from a combination of natural creeks, human-made stormwater drainage facilities, and direct surface runoff. The estuary is also influenced by the marine waters of the Bay and is subject to tidal currents. Sediment from Oakland's shoreline and creeks is carried by the tidal current to shoals and sandbars, causing siltation of the shipping channels.[3]

The San Francisco Bay Regional Water Quality Control Board (the Water Board) has designated Lake Merritt as impaired due to organic enrichment, low dissolved oxygen, and trash resulting from urban runoff and storm sewer effluent. The Oakland Inner Harbor, including the Estuary, is listed as impaired due to several pesticides (chlordane, DDT, diazinon, and dieldrin—all non-point sources), dioxin and furan compounds (from atmospheric deposition), invasive species (from ballast water) and mercury, PCBs, and selenium, and trash (from multiple or unknown sources). The south portion of San Francisco Bay is listed as impaired for the same reasons as the Inner Harbor, minus trash.[4]

Groundwater

In the vicinity of the Lake, groundwater occurs at a depth of approximately five to 10 feet below the ground surface. Near Lake Merritt and the Channel, the groundwater level is influenced by the Lake and sea level and may fluctuate with the tides.[5]

Flooding

The Federal Emergency Management Agency (FEMA), through its Flood Insurance Rate Mapping program, designates areas where urban flooding could occur during 100-year and 500-year flood events. The 100-year flood zone identifies an area inundated by 1 percent annual chance flooding (100-year Flood) and the 500-year flood zone identifies areas inundated by 0.2 percent annual chance flooding (500-year Flood); an area inundated by 1 percent annual chance flooding with average depths of less than one foot or with drainage areas less than one square mile; or an area protected by levees from 1 percent annual chance flooding.

As shown on **Figure 3.14-1**, the 100-year flood zone closely follows the edge of Lake Merritt and Lake Merritt Channel, extending slightly to the east of the Channel between the Laney College Athletic Fields and the Lake, and almost entirely remaining within park land.[6]

The City of Oakland is part of the Alameda County Flood Control and Water Control District (ACFCWCD) Zone 12. Zone 12, the largest zone in western Alameda County, covers both Oakland and Emeryville. Storm water collected from these cities (some 51,200 acres) is directed to the San Francisco Bay through natural waterways and both cities' and ACFCWCD storm drainage facilities. Four pump stations—Ettie, McKillop, Temescal, and Lake Merritt—lift stormwater flows for discharge into the Bay. The District also protects and maintains 12 creeks totaling 17 miles of natural waterway.

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[3] ESA, *Oak to Ninth Avenue Project DEIR,* 2005.

[4] State Water Resources Control Board (SWRCB), *Final California 2010 Integrated Report (303(d) List/305(b) Report),* SWCRB website, http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml,accessed May 30, 2012.

[5] LSA Associates, 2007, citing Geo/Resources Consultants, Inc., *Geotechnical Investigation 12th Street Reconstruction Project, Oakland, California, April, Report No. 2046-100,* 2006.

[6] Association of Bay Area Governments (ABAG) website, http://gis.abag.ca.gov/website/floodplain/viewer.htm, accessed January 11, 2010.

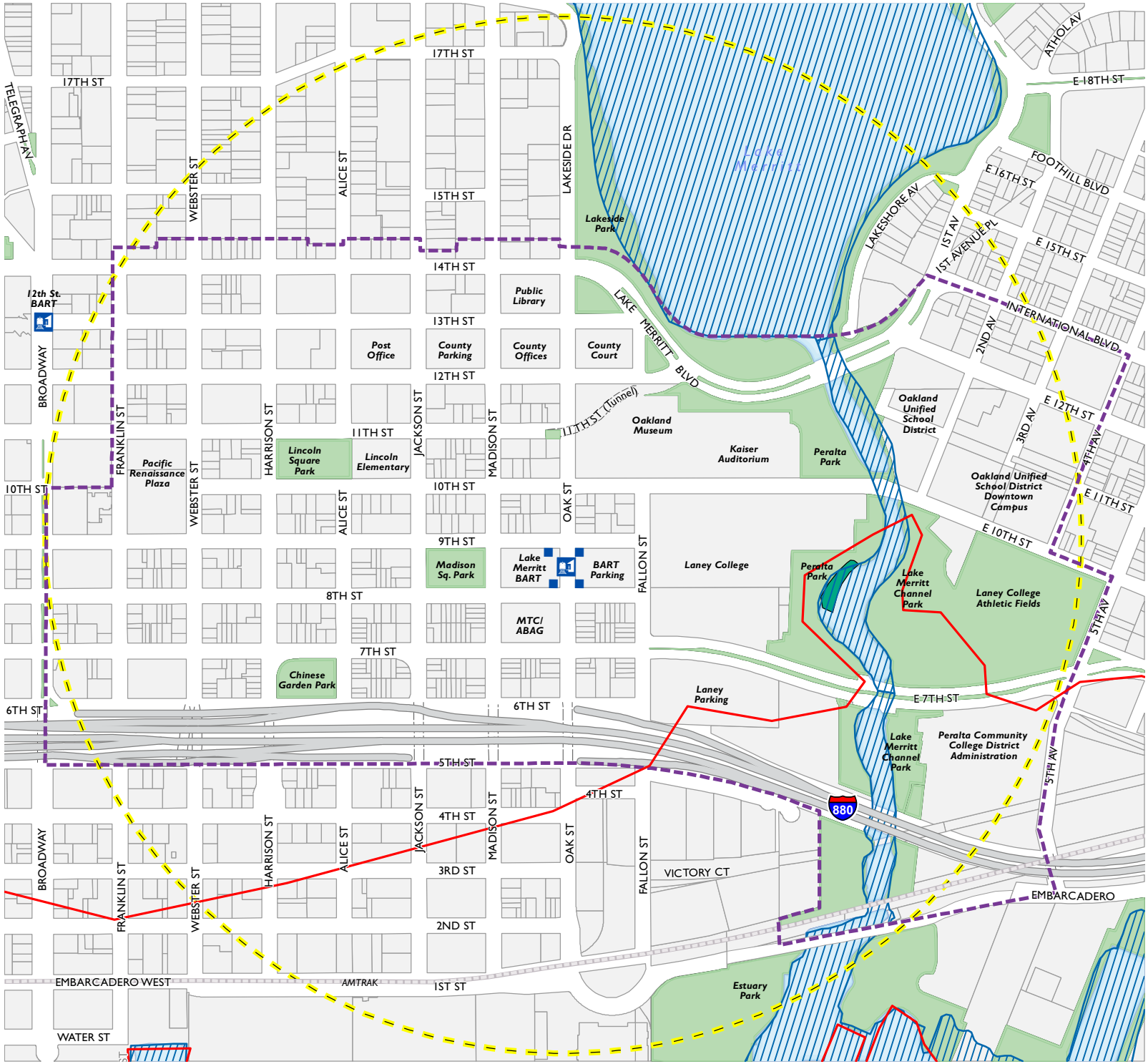

Fig 3.14-1
Flood Zones

- BART Station Entrance
- BART Station
- Tsunami Inundation Line
- 100 Year Flood Zone
- Wetlands
- Water
- Existing and Planned City Parks
- Planning Area
- 1/2 Mile Radius

The tsunami inundation line represents the maximum considered tsunami runup from a number of extreme, yet realistic, tsunami sources. It is intended for local jurisdictional, coastal evacuation planning uses only.

0 100 300 500 750 1,000
FEET

Source: FEMA DFIRM Database, Alameda County, 2011; City of Oakland, 2009; California Emergency Management Agency, California Geological Society, University of Southern California, 2009; Dyett and Bhatia, 2012.

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Flood channel capacity to convey stormwater from the hills, through the city, and out to the Bay must be carefully monitored to promote stewardship of local creeks and watershed management as well as encourage pollution prevention practices.

The District is currently working with the City of Oakland to study the feasibility of relocating the Lake Merritt Pump Station. If all operating concerns can be addressed, the City would like to have the pump station relocated to create an open boating channel from Lake Merritt to the Bay. In the meantime, the City is completing construction of a bridge over the channel to replace the existing culverts at 12th Street. Replacing the 10th Street channel structure with a bridge is also funded and will be completed in future years.

Tsunamis and Seiches

According to the Safety Element of the City's General Plan, tsunamis could affect low-lying areas along San Francisco Bay and the Oakland Estuary, especially filled areas that are only a few feet above sea level. A portion of the Planning Area along Lake Merritt Channel and including some adjacent land is within the tsunami inundation area as defined by the California Geological Survey, representing the maximum tsunami runup. This designation is provided for coastal evacuation planning only.[7]

Seiches are waves in an enclosed or semi-enclosed body of water such as a lake, reservoir or harbor. The Safety Element reports that there is no data on the local occurrence or impact of seiches, as none has ever been recorded in the Bay Area, and Lake Merritt is likely too shallow to be able to generate devastating seiches.

Stormwater Drainage and Management

Stormwater runoff is collected from within the Planning Area through various storm drain systems and culverts, as well as direct surface flow to the San Francisco Bay, via the Oakland Estuary or by way of Lake Merritt. Fourteen culverts and outfalls drain directly to Lake Merritt from the northern half of the Planning Area, and seven (observable) to the estuary from the southern half.

The City of Oakland is responsible for the construction and maintenance of the local storm drainage system within Oakland's public areas and roads, while the Alameda County Flood Control and Water Control District (ACFCWCD) constructs, operates, and maintains major trunk lines and flood control facilities in Oakland.

Existing infrastructure around and serving the Planning Area includes pipes ranging from 10 inches to over 30 inches in diameter. Several box culverts of various sizes serve as connectors in the east-west direction towards the southern half of the Planning Area. Following the natural drainage patterns of the terrain, most storm drain pipes run north to south, with the majority of the flow direction to the south. There are several (five observable) outfalls draining directly into the San Francisco Bay.

The City makes structural improvements as necessary to ensure that the system is able to reasonably handle stormwater flow, but faces financial constraints. New National Pollution Discharge Elimination System (NPDES) regulations in place as of July 2010 enable more stringent standards to be applied on new developments of one acre or greater, which should have the effect of minimizing the amount of

[7] California Geological Survey, Tsunami Inundation Map for Emergency Planning, 2009.

stormwater that flows into the drainage system from new development. Future development in the Planning Area is not expected to generate additional runoff, and could result in a decrease in runoff as already-paved areas are replaced with Low Impact Development site treatments accompanying new buildings.

On February 19, 2003, the Regional Water Quality Control Board, San Francisco Bay Region, issued a municipal stormwater permit under the National Pollutant Discharge Elimination System (NPDES) permit program to the Alameda Countywide Clean Water Program (ACCWP). The purpose of the permit is to reduce the discharge of pollutants in stormwater to the maximum extent practicable and to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses. The City of Oakland, as a member of the ACCWP, is a co-permittee under the ACCWP's permit and is, therefore, subject to the permit requirements.

Provision C.3 of the NPDES permit is the section of the permit containing stormwater pollution management requirements for new development and redevelopment projects. Among other things, Provision C.3 requires that certain new development and redevelopment projects incorporate post-construction stormwater pollution management measures, including stormwater treatment measures, stormwater site design measures, and source control measures, to reduce stormwater pollution after the construction of the project. These requirements are in addition to standard stormwater-related Best Management Practices (BMPs) required during construction. All new development and redevelopment projects that create or replace 10,000 square feet or more of impervious surface are required to incorporate post-construction stormwater pollution management measures.

Sea Level Rise

Sea level rise resulting from global climate change has the potential to alter the frequency and magnitude of flood events along the coast and in low-lying areas along San Francisco Bay. Current estimates of sea level rise are based on Global Climate Models (GCMs), based on work performed by the Intergovernmental Panel on Climate Change (IPCC), which released a summary report in 2007.[8] The IPCC results have been used by researchers in California to investigate possible ramifications along the California coast, often looking over the next 100 years. The following examples from widely accepted research provide a reasonable range of low, medium, and high estimates of future potential sea level rise.

1. *Low Rate of Increase*: The low end of the range of sea level rise projections presented in IPCC's Fourth Assessment Report would have a sea level rise of three inches by 2050 and 12 inches by 2100, relative to sea levels in the year 2000.[9]
2. *Medium Rate of Increase*: The low-range estimate by the California Climate Change Center, an initiative of the California Energy Commission (CEC), indicate that sea level could rise by up to 35 inches by 2100.[10]

[8] Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007. The Physical Science Basis: Summary for Policymakers. Contribution of Working Group 1 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.* 2007.

[9] IPCC, 2007.

[10] Cayan, D., M. Tyree, M. Dettinger, H. Hidalgo, T. Das., E. Maurer, P. Bromirski, N. Graham, and R. Flick, California Climate Change Center, *Climate Change Scenarios and Sea Level Rise Estimates for California 2008 Climate Change Scenarios Assessment.* California Energy Commission, Public Interest Energy Research Program, 2009.

3. *High Rate of Increase*: Future potential sea level rise could result in an increase of 16 inches by 2050 and 55 inches or more by 2100. These values have been cited by both San Francisco Bay Conservation and Development Commission (BCDC) in its *Living with Rising Seas* report and the State of California in its *2009 Draft Climate Adaptation Strategy*. Both reports recommend using this upper end of the range as guidance to local and State agencies planning for sea level rise, and are consistent with recent predictions made by the Pacific Institute.[11]

According to the maps produced by BCDC (using data from United States Geological Survey (USGS) studies), sea level rise could affect park land along Lake Merritt and Lake Merritt Channel by 2050, and potentially small amounts of private land directly adjacent to this park land, as well as land adjacent to the Channel south of I-880 that are designated for future park development by the Station Area Plan. The models show that additional land could be affected by 2100. The maps do not account for existing shoreline protection, and must be taken as a generalized version of the potential effects of sea level rise.[12]

REGULATORY SETTING

There is a well-established regulatory framework of state and federal laws for the protection of water resources. These regulations establish criteria for the protection of human health and the environment, including stormwater discharges to surface water. These regulations are discussed below.

Federal

Clean Water Act

The federal Clean Water Act (CWA) of 1972 requires the U.S. Environmental Protection Agency (EPA) to develop, publish, and periodically update ambient water quality criteria for the protection of human health. In 1980, the EPA published water quality criteria for 64 pollutants and pollutant classes and considered non-cancer, cancer, and taste and odor effects. Over the years, these criteria have evolved and have included additional pollutants and pollutant classes. During the last decade, policy has shifted from a program-by-program, source-by-source, pollutant-by-pollutant approach to more watershed-based strategies. Ultimately, these criteria are used by states for establishing water quality standards under Section 303 (c) of the CWA and provide a basis for controlling discharges or releases of pollutants.

National Pollutant Discharge Elimination System (NPDES) Waste Discharge Regulations

The federal CWA and subsequent amendments, under the enforcement authority of the EPA, also established the NPDES program to protect water quality of receiving waters. Under the Clean Water Act, discharge of pollutants to receiving waters is prohibited unless the discharge is in compliance with an NPDES permit. Discharge of municipal and industrial wastewater, as well as stormwater runoff, are regulated under NPDES permit requirements. The NPDES permit specifies discharge prohibitions, effluent limitations and other provisions (such as monitoring programs) deemed necessary to protect water quality. In California, the EPA has delegated the implementation and enforcement of the NPDES program to the State Water Resources Control Board and the California Regional Water Quality Control Boards.

[11] ESA, *Proposed Amendments to the Central District Urban Renewal Plan Draft EIR,* 2011.

[12] San Francisco Bay Conservation and Development Commission (BCDC), *San Francisco Bay Scenarios for Sea Level Rise Map,* BCDC website, http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml, accessed August 29 2012.

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) of 1972, as amended, sets forth the national policy that State coastal management programs should provide for public access to the coasts for recreational purposes. While boating and associated activities, such as marinas, are an important means of public access, they may also pose a threat to the health of aquatic systems if poorly planned or managed. In 1990, Congress passed the Coastal Zone Act Reauthorization Amendments (CZARA) to address non-point source pollution problems in coastal waters. Section 6217 of CZARA and Section 319 of the Clean Water Act require California and 28 other states to develop Coastal Nonpoint Source Pollution Control programs, incorporating required management measures to reduce or prevent polluted runoff to coastal waters from specific sources.

Federal Emergency Management Agency

FEMA administers the National Flood Insurance Program. The program provides subsidized flood insurance to communities that comply with FEMA regulations to limit development in floodplains. FEMA issues Flood Insurance Rate Maps, which classify flood zones, for communities participating in the National Flood Insurance Program.

Many local jurisdictions regulate development within floodplains. Construction standards are established within local ordinances and planning elements to reduce flood impedance, safety risks and property damage. Historic flooding in the San Francisco Bay region has also led local flood control agencies and the U.S. Army Corps of Engineers to establish extensive flood control projects including dams and improved channels. Mapped flood zones in the Planning Area are very limited, closely following the banks of Lake Merritt Channel.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) regulates water quality within California and establishes the authority of the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The Planning Area falls under the jurisdiction of the San Francisco Bay RWQCB.

Construction Stormwater NPDES Permit

Stormwater discharges from construction activities on one acre or more are regulated by the RWQCB and are subject to the permitting requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit, 99-08-DWQ). Effective July 1, 2010, all dischargers are required to obtain coverage under the Construction General Permit Order 2009-0009-DWQ adopted on September 2, 2009. The General Construction Permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for construction activities. The SWPPP must be prepared before construction begins, and in certain cases before demolition begins. The SWPPP must include specifications for BMPs that would be required during project construction. BMPs are measures that are undertaken to control degradation of surface water by preventing soil erosion or the discharge of pollutants from construction areas. The SWPPP must describe measures to prevent or control runoff after construction is complete and identify procedures for inspecting and maintaining facilities or other project elements. Required elements of an SWPPP include:

1. Site description addressing the elements and characteristics specific to the site;
2. Descriptions of BMPs for erosion and sediment controls;
3. BMPs for construction waste handling and disposal;
4. Implementation of approved local plans;
5. Proposed post-construction controls; and
6. Non-stormwater management.

Examples of typical construction BMPs include scheduling or limiting activities to certain times of year; installing sediment barriers such as silt fence and fiber rolls; maintaining equipment and vehicles used for construction; tracking controls such as stabilizing entrances to the construction site; and developing and implementing a spill prevention and cleanup plan. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, and vehicle and equipment washing and fueling. The California Stormwater Quality Association established BMPs for the State of California in the *California Stormwater Best Management Practice Handbook* (2003). New development associated with the Station Area Plan would be required to comply with the current NPDES permit requirements to control stormwater discharges from construction sites.

Nonpoint Source Pollution Control Program Plan

California's *Nonpoint Source Pollution Control Program Plan 1998–2013* was developed by the SWRCB and California Coastal Commission, in cooperation with the nine Regional Water Quality Control Boards, to conform to the requirements of CZARA and the Clean Water Act.[13] The plan is intended to protect the State's water quality by expanding its polluted runoff control efforts. It specifies 60 management measures to prevent or reduce water quality degradation from agriculture, forestry, urban areas, marinas and boating, hydromodification, and wetlands. The Plan provides a single unified, coordinated statewide approach to dealing with Nonpoint Source (NPS) pollution. A total of 28 state agencies are working collaboratively through the Interagency Coordinating Committee to implement the NPS Pollution Control Program Plan.

State Water Quality Certification Program

The RWQCBs also coordinate the State Water Quality Certification Program, or Section 401 of the CWA. Under Section 401, states have the authority to review any permit or license that will result in a discharge or disruption to wetlands and other waters under state jurisdiction, to ensure that the actions will be consistent with the state's water quality requirements. This program is most often associated with Section 404 of the CWA, which obligates the U.S. Army Corps of Engineers to issue permits for the movement of dredge and fill material into and from the "waters of the United States." Additionally, Section 404 requires permits for activities affecting wetlands. Prospective alterations of hydrologic features such as wetlands, rivers, and ephemeral creek beds resulting from construction require Section 404 permits.

[13] State Water Resources Control Board (SWRCB) and California Coastal Commission (CCC), *Nonpoint Source Pollution Control Program Plan 1998-2013,* 2000.

Regional Regulations

San Francisco Bay Regional Water Quality Control Board

San Francisco Bay waters are under the jurisdiction of the San Francisco Bay RWQCB. The San Francisco RWQCB established regulatory standards and objectives for water quality in the Bay in the Basin Plan for the San Francisco Bay Basin. The Basin Plan identifies existing and potential beneficial uses and provides numerical and narrative water quality objectives designed to protect those uses.

The San Francisco Bay RWQCB has listed all segments of San Francisco Bay and many freshwater creeks and streams as impaired water bodies, as required under Section 303 (d) of the CWA. Impaired waters are defined as those that do not meet water quality standards, even after point sources of pollution have implemented pollution control technology. The CWA requires the development of action plans, known as Total Maximum Daily Loads (TMDL), to improve water quality in water bodies designated as impaired. The TMDL is a calculation of the total amount of a pollutant that a water body can receive and still meet water quality objectives for a pollutant identified as causing impairment. The TMDL report allocates permissible quantities for discharge from specific sources. Within the San Francisco RWQCB region, the 2006 303(d) list includes more than 270 listings in 88 water bodies. RWQCB staff is currently developing TMDL projects to address more than 160 of the 270 listings within the 88 impaired water bodies.[14] One TMDL may address multiple listings such as Diazinon/Pesticide Toxicity which for urban creeks addresses more than 30 impaired creeks or creek segments. The TMDL reports and associated implementation plans include considerations for future amendments to the Basin Plan to adopt the TMDL and all its related parts.

Alameda Countywide Clean Water Program

In 1987, 17 local agencies, including Oakland, formed the Alameda Countywide Clean Water Program (ACCWP) and obtained a joint NPDES permit. The City of Oakland must comply with the provisions of the countywide permit by ensuring that new development and redevelopment mitigate water quality impacts to stormwater runoff both during construction and operation periods of projects. All projects are required to apply the following stormwater requirements, as applicable: maximize pervious areas, use construction-period BMPs, and post-construction stormwater treatment measures to the maximum extent practicable (MEP). Projects that propose to create (or, in the process of redevelopment, add or replace) more than 10,000 square feet of impervious surfaces are subject to these regulations plus additional requirements as detailed below.

- Numeric Sizing Criteria for Post Construction Pollutant Removal Treatment Systems. Each project covered by the permit must include source controls, design measures, and treatment controls to minimize stormwater pollutant discharges. Treatment controls must be sized to treat a specific amount—about 85 percent—of average annual runoff (in the Bay Area, this is equivalent to a one-inch storm).
- Operation and Maintenance of Treatment Measures. Treatment controls often do not work unless adequately maintained. The permit requires an operations and maintenance program, which includes: (1) identifying the properties with treatment controls; (2) developing agreements with

[14] San Francisco Bay Regional Water Quality Control Board (RWQCB), *Water Quality Control Plan for the San Francisco Bay Basin,* 2007, amended through 2011.

private entities to maintain the controls; and (3) periodic inspection, maintenance (as needed), and reporting.

- Limitation on Increase of Peak Stormwater Runoff Discharge Rates. Urbanization creates impervious surfaces that reduce landscape's natural ability to absorb water and release it slowly to creeks. These impervious surfaces increase peak flows in creeks and can cause erosion. This potential impact to creek systems is termed "hydrograph modification" or "hydromodification." Depending on location, some projects must evaluate the potential for this to occur and provide mitigation as necessary.

On March 14, 2007, the San Francisco Bay Regional Water Quality Control Board issued Order No. R2-2007-0025 (NPDES Permit No. CAS0029831), an amendment revising Order No. R2-2003-0021. This order adopts the revised hydrograph modification management provisions and includes by reference the ACCWP countywide Hydrograph Modification Management Plan (HMMP) of May 15, 2005.[15] The HMMP standard is intended to ensure that new projects in Alameda County, including within the City of Oakland, do not increase erosion. A new development or redevelopment project in which the combined amounts of impervious surface created and replaced totals one acre or more is required to comply with the Water Board Order's hydromodification standard and the ACCWP HMMP unless it falls into one of several exempt categories.

Examples of exempt projects include single-family homes; transit village redevelopments; and sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with streets, roads, highways, or freeways. Exemptions are also provided for projects served by hardened stormwater conduits and projects in areas near the Bay that are tidally influenced or subject to sediment deposition. The Planning Area and most of the expected future development and public infrastructure within it largely falls within an exempt category. Nevertheless, exempt projects are required to incorporate site design/landscape characteristics, which maximize infiltration (where appropriate), provide retention or detention, slow runoff, and minimize impervious land coverage (i.e., use hydrologic source controls) to the maximum extent practicable.

Local

City of Oakland General Plan

The General Plan includes the following objectives and policies pertaining to hydrology and water quality:

Open Space, Conservation and Recreation Element Policies

Policy CO-5.1: Protection of Groundwater Recharge. Encourage groundwater recharge by protecting large open space areas, maintaining setbacks along creeks and other recharge features, limiting impervious surfaces where appropriate, and retaining natural drainage patterns within newly developing areas.

[15] Alameda County Public Works Agency (ACCWP), *Hydrograph Modification Management Plan,* 2005.

Policy CO-5.2: Improvements to Groundwater Quality. Support efforts to improve groundwater quality, including the use of non-toxic herbicides and fertilizers, the enforcement of anti-litter laws, the clean-up of sites contaminated by toxics, and on-going monitoring by the Alameda County Flood Control and Water Conservation District.

Policy CO-5.3: Control of Urban Runoff. Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards" and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions.

Policy CO-6.1: Creek Management. Protect Oakland's remaining natural creek segments by retaining creek vegetation, maintaining creek setbacks, and controlling bank erosion. Design future flood control projects to preserve the natural character of creeks and incorporate provisions for public access, including trails, where feasible. Strongly discourage projects which bury creeks or divert them into concrete channels.

Policy CO-6.2: Creek Maintenance and Safety. Strictly enforce local, state, and federal laws and ordinances on the maintenance of creeks and watercourses. Abate health and safety hazards along and within creeks through a variety of measures, including creek dean-up programs, stronger enforcement of litter and anti-dumping laws, and vegetation maintenance requirements for properties abutting creeks.

Policy CO-6.3: Creek Awareness. Encourage and support programs which educate the public, especially school children, on the ecological importance of creeks.

Policy CO-6.4: Lake Management. Manage Oakland's lakes to take advantage of their recreational and aesthetic potential while conserving their ecological functions and resource value. Discourage new recreational uses which impair the ability of the lakes to support fish and wildlife. Support improvements which enhance water circulation, water quality, and habitat value, provided they are cost-effective and are compatible with established recreational activities.

Policy CO-6.5: Estuary and Bay Waters. Manage Protect the surface waters of the San Francisco Estuary system, including San Francisco Bay, San Leandro Bay, and the Oakland Estuary. Discourage shoreline activities which negatively impact marine life in the water and marshland areas.

Safety Element Policies

Policy FL-1: Enforce and update local ordinances, and comply with regional orders that would reduce the risk of storm-induced flooding.

Policy FL-2: Continue or strengthen city programs that seek to minimize the storm-induced flooding hazard.

Policy FL-3: Seek the cooperation and assistance of other government agencies in managing the risk of storm-induced flooding.

City of Oakland Municipal Code

Some applicable chapters regarding Hydrology and Water Quality include:

Creek Protection, Storm Water Management and Discharge Control Ordinance

Title 13, Chapter 13.16 of the Oakland Municipal Code (OMC) is intended to protect and enhance water quality in the City's creeks, water bodies, and other wetlands pursuant to the Clean Water Act. Its requirements aim to eliminate non-storm water discharges to the municipal separate storm sewer; reduce pollutants in storm water discharges; preserve natural vegetation and wildlife along creeks and riparian corridors; and prevent activities that would cause significant erosion or flooding, destroy riparian areas or inhibit their restoration.

To protect water quality, the Ordinance prohibits non-storm water discharges to the municipal storm drainage system unless the discharge is separately regulated under an NPDES permit and is in full compliance with that permit. Pollutants that could enter the storm drainage system are to be eliminated to the greatest extent feasible.

The Ordinance protects natural waterways by requiring all owners of land through which a water course passes to ensure reasonable maintenance and to not remove healthy riparian vegetation. Any development on a creekside property, or within the public right-of-way fronting a creekside property, requires a creek protection permit from the Chief of Building Services. Four categories of permit are defined, based on the potential for work to impact the creek. Exterior development work beyond 100 feet of the centerline of a creek (Category II) requires submittal of a site plan. Exterior development work within 100 feet (Category III) requires a site plan as well as a creek protection plan that describes the best management practices that will be employed to assure construction activity will not adversely impact creek bank, riparian corridor or water quality. Finally, exterior development work within the 20-foot setback from the top of the creek (Category IV) requires a site plan, a creek protection plan, and a hydrology report. Category III and IV permits are discretionary actions subject to CEQA review.

Oakland Amendments to the California Model Building Codes

Chapter 15.04, Oakland Amendments to the California Model Building Codes, is also relevant for hydrology and water quality. In particular, Chapter 15.04.780, Section 3304, Grading, Excavation and Fills, requires a permit for projects that exceed certain criteria and defines the terms under which a grading permit will be required.

City of Oakland's Standard and Uniformly Applied Conditions of Approval

The City of Oakland's Standard and Uniformly Applied Conditions of Approval (Standard Conditions of Approval, or SCA) would apply to development under the proposed Plan.

SCA-34. Erosion and Sedimentation Control [When no grading permit is required.][16]

Ongoing throughout demolition grading, and/or construction activities

The project applicant shall implement Best Management Practices (BMPs) to reduce erosion, sedimentation, and water quality impacts during construction to the maximum extent practicable. Plans demonstrating the Best Management Practices shall be submitted for review and approval by the Planning and Zoning Division and the Building Services Division. At a minimum, the project applicant shall provide filter materials deemed acceptable to the City at nearby catch basins to prevent any debris and dirt from flowing into the City's storm drain system and creeks.

SCA-35. Hazards Best Management Practices

Prior to commencement of demolition, grading, or construction

The project applicant and construction contractor shall ensure that construction of Best Management Practices (BMPs) are implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

a. Follow manufacture's recommendations on use, storage, and disposal of chemical products used in construction;

b. Avoid overtopping construction equipment fuel gas tanks;

c. During routine maintenance of construction equipment, properly contain and remove grease and oils;

d. Properly dispose of discarded containers of fuels and other chemicals;

e. Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development. Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all UST's, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building; and

f. If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notification of regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

[16] These Development Standards apply to ALL construction projects.

SCA-55. Erosion and Sedimentation Control Plan[17]

Prior to any grading activities

a. The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.660 of the Oakland Municipal Code. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

Ongoing throughout grading and construction activities

a. The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

SCA-64. Environmental Site Assessment Reports Remediation[18]

Prior to issuance of a demolition, grading, or building permit

If the environmental site assessment reports recommend remedial action, the project applicant shall:

a. Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.

b. Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.

c. Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II

[17] These Development Standards apply to ALL projects that require a Grading Permit, except for projects that involve construction on slopes that exceed 20 percent. (See other Erosion and Sedimentation Control Plan.)

[18] These Development Standards apply (a) to ALL projects that include the redevelopment or reuse of historically industrial or commercial buildings; (b) if the site has been identified in City records for hazardous materials, such as the Permit Tracking System (PTS), OR (c) if the site has been identified on the State Cortese List [NOTE: PRESENCE ON CORTESE LIST PRECLUDES USE OF A CATEGORICAL EXEMPTION].

environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

SCA-68. Best Management Practices for Soil and Groundwater Hazards

Ongoing throughout demolition, grading, and construction activities

The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards.

a. Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland.

b. Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources

c. Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.

SCA-69. Radon or Vapor Intrusion from Soil or Groundwater Sources[19]

Ongoing

The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.

[19] These Development Standards apply to ALL construction projects that include 1) habitable space below the ground AND/OR 2) the redevelopment or reuse of historically industrial or commercial buildings OR 3) Soil and/or Groundwater Hazards.

SCA-75. Stormwater Pollution Prevention Plan (SWPPP)[20]

Prior to and ongoing throughout demolition, grading, and/or construction activities

The project applicant must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB). The project applicant must file a notice of intent (NOI) with the SWRCB. The project applicant will be required to prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Building Services Division. At a minimum, the SWPPP shall include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; Best Management Practices (BMPs), and an inspection and monitoring program. Prior to the issuance of any construction-related permits, the project applicant shall submit to the Building Services Division a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP shall start with the commencement of construction and continue through the completion of the project. After construction is completed, the project applicant shall submit a notice of termination to the SWRCB.

SCA-78. Site Design Measures for Post-Construction Stormwater Management[21]

Prior to issuance of building permit (or other construction-related permit)

The project drawings submitted for a building permit (or other construction-related permit) shall contain a final site plan to be reviewed and approved by Planning and Zoning. The final site plan shall incorporate appropriate site design measures to manage stormwater runoff and minimize impacts to water quality after the construction of the project. These measures may include, but are not limited to, the following:

a. Minimize impervious surfaces, especially directly connected impervious surfaces;

b. Utilize permeable paving in place of impervious paving where appropriate;

c. Cluster buildings;

d. Preserve quality open space; and

e. Establish vegetated buffer areas.

Ongoing

The approved plan shall be implemented and the site design measures shown on the plan shall be permanently maintained.

[20] These Development Standards apply to ALL projects that disturb one (1) acre or more of surface area.

[21] These Development Standards apply to ALL projects that create or replace LESS than 10,000 square feet of impervious service or involve construction of one single family home. Exceptions to this standard include the following:

a) Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with the street.

b) Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and

c) Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.

SCA-79. Source Control Measures to Limit Stormwater Pollution

Prior to issuance of building permit (or other construction-related permit)

The applicant shall implement and maintain all structural source control measures imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.

Ongoing

The applicant, or his or her successor, shall implement all operational Best Management Practices (BMPs) imposed by the Chief of Building Services to limit the generation, discharge, and runoff of stormwater pollution.

SCA-80. Post-Construction Stormwater Management Plan[22]

Prior to issuance of building permit (or other construction-related permit)

The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Construction-Permit-Phase Stormwater Supplemental Form to the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater management plan, for review and approval by the City, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

a. The post-construction stormwater management plan shall include and identify the following:

   1. All proposed impervious surface on the site;
   2. Anticipated directional flows of on-site stormwater runoff; and
   3. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and
   4. Source control measures to limit the potential for stormwater pollution;
   5. Stormwater treatment measures to remove pollutants from stormwater runoff; and
   6. Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit.

[22] These Development Standards apply to ALL projects 1) where the application for a zoning permit was deemed complete on or after February 15, 2005, that create or replace 1 acre or MORE of impervious surface or 2) that the application for a zoning permit was deemed complete on or after August 15, 2006, that create or replace 10,000 square feet or more of impervious surface. Exceptions include the following:

a) Sidewalks, bicycle lanes, trails, bridge accessories, guardrails, and landscape features associated with the street.

b) Routine maintenance and repair of existing impervious surfaces, including roof and pavement resurfacing and road pavement structural section rehabilitation work within the existing pavement footprint; and

c) Reconstruction work within an existing public street right-of-way where both sides of the right-of-way are already developed.

b. The following additional information shall be submitted with the post-construction stormwater management plan:

   1. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and

   2. Pollutant removal information demonstrating that any proposed manufactured/ mechanical (i.e., non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project.

All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

SCA-81. Maintenance Agreement for Stormwater Treatment Measures[23]

Prior to final zoning inspection

For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:

a. The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and

b. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.

SCA-82. Erosion, Sedimentation, and Debris Control Measures[24]

Prior to issuance of demolition, grading, or construction-related permit

The project applicant shall submit an erosion and sedimentation control plan for review and approval by the Building Services Division. All work shall incorporate all applicable "Best Management Practices (BMPs) for the construction industry, and as outlined in the Alameda Countywide Clean Water Program pamphlets, including BMP's for dust, erosion and sedimentation abatement per Chapter Section 15.04 of the Oakland Municipal Code. The measures shall include, but are not limited to, the following:

[23] Prior to final permit inspection. The applicant shall implement the approved stormwater management plan.

[24] These Development Standards apply to ALL projects that involve a Creek Protection Permit.

BASIC[25]

a. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.

b. In accordance with an approved erosion control plan, the project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent degradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

c. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.

d. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

e. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the Engineering Division at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

f. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

g. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

h. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

i. Gather all construction debris on a regular basis and place them in a dumpster or other container which is emptied or removed on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

j. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

k. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, stormdrains.

[25] *Applies to all construction sites.*

l. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Board (RWQB).

m. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of Planning and Zoning.

n. All erosion and sedimentation control measures shall be monitored regularly by the project applicant. The City may require erosion and sedimentation control measures to be inspected by a qualified environmental consultant (paid for by the project applicant) during or after rain events. If measures are insufficient to control sedimentation and erosion then the project applicant shall develop and implement additional and more effective measures immediately.

SCA-83. Creek Protection Plan[26]

Prior to and ongoing throughout demolition, grading, and/or construction activities

a. The approved creek protection plan shall be included in the project drawings submitted for a building permit (or other construction-related permit). The project applicant shall implement the creek protection plan to minimize potential impacts to the creek during and after construction of the project. The plan shall fully describe in plan and written form all erosion, sediment, stormwater, and construction management measures to be implemented on-site.

b. If the plan includes a stormwater system, all stormwater outfalls shall include energy dissipation that slows the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains.

SCA-84. Regulatory Permits and Authorizations

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

Prior to construction within the vicinity of the creek, the project applicant shall obtain all necessary regulatory permits and authorizations from the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game, and the City of Oakland, and shall comply with all conditions issued by applicable agencies. Required permit approvals and certifications may include, but not be limited to the following:

a. U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps shall be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act.

b. Regional Walter Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above.

[26] These Development Standards apply to ALL projects that involve a Category III and IV Creek Protection permit).

c. California Department of Fish and Game (CDFG): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFG.

SCA-85. Creek Monitoring

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

A qualified geotechnical engineer and/or environmental consultant shall be retained and paid for by the project applicant to make site visits during all grading activities; and as a follow-up, submit to the Building Services Division a letter certifying that the erosion and sedimentation control measures set forth in the Creek Protection Permit submittal material have been instituted during the grading activities.

SCA-86. Creek Landscaping Plan

Prior to issuance of a demolition, grading, or building permit within vicinity of the creek

The project applicant shall develop a final detailed landscaping and irrigation plan for review and approval by the Planning and Zoning Division prepared by a licensed landscape architect or other qualified person. Such a plan shall include a planting schedule, detailing plant types and locations, and a system for temporary irrigation of plantings.

a. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.

b. All landscaping indicated on the approved landscape plan shall be installed prior to the issuance of a Final inspection of the building permit, unless bonded pursuant to the provisions of Section 17.124.50 of the Oakland Planning Code.

c. All landscaping areas shown on the approved plans shall be maintained in neat and safe conditions, and all plants shall be maintained in good growing condition and, whenever necessary replaced with new plant materials to ensure continued compliance with all applicable landscaping requirements. All paving or impervious surfaces shall occur only on approved areas.

SCA-87. Creek Dewatering and Aquatic Life[27]

Prior to the start of and ongoing throughout any in-water construction activity

a. If any dam or other artificial obstruction is constructed, maintained, or placed in operation within the stream channel, ensure that sufficient water is allowed to pass down channel at all times to maintain aquatic life (native fish, native amphibians, and western pond turtles) below the dam or other artificial obstruction.

b. The project applicant shall hire a biologist, and obtain all necessary State and federal permits (e.g., CDFG Scientific Collecting Permit), to relocate all native fish/native amphibians/pond turtles within the work site, prior to dewatering. The applicant shall first obtain a project-specific authorization from the CDFG and/or the USFWS, as applicable to relocate these animals.

[27] These Development Standards apply to ALL projects that require a Creek Protection Permit AND dewatering or diversion of water.

Captured native fish/native amphibians/pond turtles shall be moved to the nearest appropriate site on the stream channel downstream. The biologist/contractor shall check daily for stranded aquatic life as the water level in the dewatering area drops. All reasonable efforts shall be made to capture and move all stranded aquatic life observed in the dewatered areas. Capture methods may include fish landing nets, dip nets, buckets, and by hand. Captured aquatic life shall be released immediately in the nearest appropriate downstream site. This condition does not allow the take or disturbance of any state or federally listed species, nor state-listed species of special concern, unless the applicant obtains a project specific authorization from the CDFG and/or the USFWS, as applicable.

SCA-88. Creek Dewatering and Diversion

Prior to the start of any in-water construction activities

If installing any dewatering or diversion device(s), the project applicant shall develop and implement a detailed dewatering and diversion plan for review and approval by the Building Services Division. All proposed dewatering and diversion practices shall be consistent with the requirements of the Streambed Alteration Agreement issued by the California Department of Fish and Game.

a. Ensure that construction and operation of the devices meet the standards in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).

b. Construct coffer dams and/or water diversion system of a non-erodable material which will cause little or no siltation. Maintain coffer dams and the water diversion system in place and functional throughout the construction period. If the coffer dams or water diversion system fail, repair immediately based on the recommendations of a qualified environmental consultant. Remove devices only after construction is complete and the site stabilized.

c. Pass pumped water through a sediment settling device before returning the water to the stream channel. Provide velocity dissipation measures at the outfall to prevent erosion.

SCA-89. Regulatory Permits and Authorizations[28]

Prior to issuance of a demolition, grading, or building permit

Prior to construction within the floodway or floodplain, the project applicant shall obtain all necessary regulatory permits and authorizations from the Alameda County Flood Control and Water Conservation District and shall comply with all conditions issued by that agency.

SCA-90. Structures within a Floodplain

Prior to issuance of a demolition, grading, or building permit

a. The project applicant shall retain the civil engineer of record to ensure that the project's development plans and design contain finished site grades and floor elevations that are elevated above the Base Flood Elevation (BFE) if established within a 100-year flood event.

[28] These Development Standards apply to ALL projects that require new construction within the 100 year flood plain as mapped on a Federal Hazard Boundary, Flood Insurance Rate Map, or other flood hazard delineation map. See Arcview for the 100 and 500 year flood layer.

b. The project applicant shall submit final hydrological calculations that ensure that the structure will not interfere with the flow of water or increase flooding.

SCA-91. Stormwater and Sewer[29]

Prior to completing the final design for the project's sewer service

Confirmation of the capacity of the City's surrounding stormwater and sanitary sewer system and state of repair shall be completed by a qualified civil engineer with funding from the project applicant. The project applicant shall be responsible for the necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed Plan. In addition, the applicant shall be required to pay additional fees to improve sanitary sewer infrastructure if required by the Sewer and Stormwater Division. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/inflow to offset sanitary sewer increases associated with the proposed Plan. To the maximum extent practicable, the applicant will be required to implement Best Management Practices to reduce the peak stormwater runoff from the project site. Additionally, the project applicant shall be responsible for payment of the required installation or hook-up fees to the affected service providers.

FINDINGS OF THE HOUSING ELEMENT EIR

The most recent Housing Element update was the subject of a Final EIR that was certified in 2010. The findings of this analysis are relevant because they are recent and because they consider housing development on a range of potential development sites including in the Planning Area.

Development at the opportunity sites identified in the Housing Element would largely occur as infill, in an urbanized and built-out City. The Housing Element EIR determined that compliance with General Plan policies, the Municipal Code, and the City's SCAs would ensure that development under the Housing Element would not result in significant impacts as a result of runoff/erosion, groundwater depletion, and/or flooding/hazards. Thus, the development of identified opportunity sites in the Housing Element EIR would have a less than significant impact regarding hydrology and water quality.

Impact Analysis

THRESHOLDS OF SIGNIFICANCE

The project would have a significant impact on the environment if it would:

1. Violate any water quality standards or waste discharge requirements;
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted);
3. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters;

[29] These Development Standards apply to ALL projects that involve a new connection to the City's stormwater and sewer system.

4. Result in substantial flooding on- or off-site;
5. Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems;
6. Create or contribute substantial runoff which would be an additional source of polluted runoff;
7. Otherwise substantially degrade water quality;
8. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows;
9. Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
10. Expose people or structures to a substantial risk of loss, injury or death involving flooding;
11. Expose people or structures to a substantial risk of loss, injury, or death as a result of inundation by seiche, tsunami, or mudflow;
12. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or off-site; or
13. Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources. [Note: Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water or capacity, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) substantially endangering public or private property or threatening public health or safety.]

METHODOLOGY AND ASSUMPTIONS

The impact analysis considers the potential for water quality degradation and increased erosion, sedimentation, and adverse conditions associated with future construction activities and other results of development under the proposed Plan. Existing policies and regulations that minimize the impacts of growth on water resources are also considered. The gentle topography and location of the Planning Area make the potential for mudflows remote; this is briefly considered.

SUMMARY OF IMPACTS

Impact HYD-1 – Water Quality Standards and Waste Discharge Requirements

Both construction and permanent development patterns have the potential to affect water quality. On sites of one acre or more, construction will be required to prepare an implement a Stormwater Pollution Prevention Plan under the General Construction Permit, and all construction projects will be subject to City of Oakland SCAs.

Development under the proposed Plan will occur on sites that are already paved or developed, meaning that there is not expected to be an increase in the amount of impervious surface in the Planning Area, and no consequent increase in stormwater runoff, a long-term potential source of water quality issues, over the

life of new projects. Furthermore, City of Oakland SCA require that Low Impact Development (LID) techniques be used, making this potential impact less than significant.

Impact HYD-2 – Groundwater Recharge

Development under the proposed Plan is not expected to increase the amount of impervious surface area in the Planning Area, and may be expected to result in improvements that aid stormwater infiltration. These factors will make the potential impact on groundwater recharge less than significant.

Impact HYD-3 – Erosion or Siltation

Development under the proposed Plan could have the potential to result in increased erosion or siltation. However, these potential effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations, making the potential impact less than significant.

Impact HYD-4 – Substantial Flooding

Development under the proposed Plan could have the potential to result in increased runoff, which could potentially result in increased flooding hazards on- or off-site. However, these potential effects are minimized by the fact that new development will take place on already-urbanized sites, they and will be required to adhere to existing regulations, making the potential impact less than significant.

Impact HYD-5 – Stormwater Drainage System

Because the proposed Plan is not expected to increase the amount of runoff due to the highly-urbanized existing context and to requirements for Low Impact Development, impacts on the storm drainage system would be less than significant.

Impact HYD-6 – Runoff and Other Potential Sources of Water Quality Degradation

Intensification of the urban environment has the potential to result in increased runoff, which could be the source of additional polluted runoff. However, new development will take place on already urbanized sites and will be required to adhere to all existing regulations and SCAs, making this potential impact less than significant. The proposed Plan will not result in other substantial sources of potential water quality degradation.

Impact HYD-7 – Housing and Structures in a Flood Hazard Area

The small 100-year flood zone within the Planning Area is almost entirely confined to park land along Lake Merritt and Lake Merritt Channel. Where one potential development site is affected by the 100-year flood zone, adherence to all building code requirements and SCAs as well as the Creek Protection Ordinance will make the potential for new housing or structures to impede or redirect flood flows less than significant.

Impact HYD-8 – Exposure to Flooding, and Sea Level Rise

Adherence to all building code requirements and SCAs as well as the Creek Protection Ordinance, which is required of all projects, will make the potential for the proposed Plan to expose people or structures to a substantial risk of loss, injury, or death involving flooding less than significant.

CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project, such as sea level rise, are legally not required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes such potential effects in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City SCAs and/or project-specific non-CEQA recommendations to address these issues.

The State of California Sea Level Rise Interim Guidance Document developed by the Sea-Level Rise Task Force of the Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT) recommends the consideration of the following sea level rise scenarios for planning purposes in the San Francisco Bay Area region and California as a whole:

- Year 2050 scenario – 16-inch rise (equivalent to 1.3 feet or 0.4 meters)
- Year 2100 scenario – 55-inch rise (equivalent to 4.6 feet or 1.4 meters)

Portions of the Planning Area along Lake Merritt and Lake Merritt Channel, as well as adjacent land at the Peralta Community College District Administration site, could be at risk of potential sea level rise by 2100. None of the land that the model shows could be potentially affected is expected to be developed with housing or other uses that would place people at risk. Current potential sea level rise maps do not account for existing flood protection structures. It is reasonable to expect that sea level rise projections will become incorporated into flood hazard mapping, and that existing policies and regulations that provide protection from flooding will also apply to areas where potential sea level rise will occur.

Impact HYD-9 – Tsunami, Seiche, or Mudflow

A small portion of the Planning Area along Lake Merritt Channel is within the tsunami runup zone. This zone is mapped for emergency response planning purposes and does not dictate any restriction in land use. The Planning Area is not susceptible to seiche or mudflow, making this impact less than significant.

Impact HYD-10 – Drainage Pattern

The proposed Plan will not directly alter the course or increase the rate or amount of flow of a creek. Potential indirect impacts that could result in substantial alteration of drainage patterns and resulting erosion, siltation or flooding are discussed in other impact statements, and are reduced to a less than significant level by adherence to existing regulations and SCAs.

Impact HYD-11 – Creek Protection

The proposed Plan will not affect enforcement of the City's Creek Protection Ordinance, and reinforces the Ordinance's intent by extending the park land corridor along Lake Merritt Channel.

Cumulative Impact HYD-12 – Hydrology

The proposed Plan, in combination with recent, current, and reasonably foreseeable maximum development, could combine to contribute to water quality degradation in Lake Merritt and regional water bodies, and increase the risk of flooding. However, all new development will be required to comply with all water quality regulations and incorporate stormwater best management practices, making this potential cumulative impact less than significant. The proposed Plan would facilitate drainage improvements as

part of new streetscapes, among other things, and its potential contribution to hydrological impacts is not cumulatively considerable.

IMPACTS

Impact HYD-1

Implementation of the proposed Plan would not violate any water quality standards or waste discharge requirements (*Less than Significant*).

Potential impacts concerning water quality standards and waste discharge requirements may be considered in two categories: impacts that could occur during construction, and impacts that could result from development over time.

Construction Impacts

Construction activities undertaken to implement development and infrastructure projects following the Station Area Plan could include excavation, soil stockpiling, boring, and/or grading activities. Soil erosion could potentially occur during construction, resulting in water quality problems in receiving waters could include turbidity, increased algal growth, oxygen depletion, or sediment buildup, thereby degrading aquatic habitats. There is potential for chemicals to be released at most construction sites given the types of materials used, including fuels, oils, paints, and solvents. Once released, these substances could be transported to Lake Merritt and San Francisco Bay in stormwater runoff, dewatering effluent, wash water, and dust control water, potentially reducing water quality. Runoff could impact aquatic habitat and other beneficial uses of receiving waters. At most potential building or infrastructure development sites in the Planning Area, stormwater runoff would be intercepted by local storm drains, culverts, and pipes, and ultimately discharged into receiving waters. For this reason, even projects not directly adjacent to a sensitive area could have an impact.

These potential effects are addressed by existing regulations. Development projects that would disturb one acre or more are required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), in accordance with the SWRCB's General Construction Permit. For those project components that would disturb less than one acre of land, City of Oakland Municipal Code section 13.16.100 (City Of Oakland Creek Protection, Storm Water Management and Discharge Control Ordinance) would still be required. The ordinance requires the use of standard Best Management Practices to prevent pollution or erosion to creeks and/or storm drains. Additionally, a creek protection permit is required for any construction work on creek side properties.

In addition, the City of Oakland has numerous SCAs relating to stormwater runoff from construction. These include COA 34 (Erosion and Sedimentation Control) and 35 (Hazards Best Management Practices), which apply to all construction projects; COA 55 (Erosion and Sedimentation Control Plan), 64 (Environmental Site Assessment Reports Remediation), and 68 (Best Management Practices for Soil and Groundwater Hazards), which apply to all projects that require a Grading Permit except for those on steep slopes. Additional COAs apply to projects of one acre or more, including the requirement for a Stormwater Pollution Prevention Plan discussed above (COA 75) and others.

Incorporation of best management practices as required by numerous existing regulations would reduce this potential impact on water resources during construction to a less than significant level.

Impacts from Developed Land

After construction, new development has the potential to result in increased stormwater runoff and pollutants entering receiving waters. Urban runoff can carry a variety of pollutants, such as oil and grease, metals, sediment, and pesticide residues from roadways, parking lots, rooftops, landscaped areas, and other surfaces, and deposit them in adjacent waterways.

Runoff in the Planning Area enters Lake Merritt and San Francisco Bay, water bodies that are listed as impaired by the Water Board. San Francisco Bay and Oakland Inner Harbor are water quality impaired for several pesticides (chlordane, DDT, diazinon, and dieldrin), dioxin compounds, exotic species, furan compounds, mercury, PCBs, and selenium,[30] and the Water Board has determined that the assimilative capacity of the San Francisco Bay for these pollutants has already been exceeded. Most contaminants that have been identified as causing the water quality impairment of the Bay and Inner Harbor are unlikely to be used at Planning Area development sites. Each of the pesticides listed above has been banned for non-agricultural use and is therefore not available for use in the Planning Area. Atmospheric deposition is the source of the dioxin and furan compounds, and this would not be affected by Planning Area development. Mercury would not be used in anticipated development, and Planning Area land uses would not be expected to use selenium, typically associated with industrial point sources, natural sources, and exotic species, which would also not be introduced.

Water quality in stormwater runoff is regulated locally by the Alameda Countywide Clean Water Program and the municipal stormwater requirements set by the RWQCB. Adherence to these requirements results in new development projects incorporating treatment measures and other appropriate source control and site design features that reduce pollutants in runoff to the maximum extent practicable. Many of these requirements result in the construction of Low Impact Development (LID) techniques such as use of on-site infiltration through landscaping or vegetated swales that reduce pollutant loading in off-site discharges. Incorporation of these types of source control design measures can even potentially improve upon existing conditions, and the impact will be less than significant.

The proposed Station Area Plan includes additional policies that require stormwater runoff to be minimized in private development and streetscape improvements, but the additional policies are not needed to reduce this impact to less than significant levels.

Mitigation Measures

None required.

Impact HYD-2

Implementation of the proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted). (*Less than Significant*)

[30] LSA Associates, 2007, Measure DD Implementation Plan EIR (2007), citing Regional Water Quality Control Board, San Francisco Bay Region, 2003. 2002 CWA Section 303(d) List of Water Quality Limited Segment, Approved by USEPA, July 2003.

New development under the proposed Plan is anticipated to result in the intensification of the built environment. This could have the potential to reduce groundwater infiltration and recharge. Though groundwater in the Planning Area is not used for water supply use, it is considered by the RWQCB as a potential resource.

The Planning Area is highly urbanized, and largely covered with impervious surfaces. However, as new development occurs, projects would be designed to retain, capture and convey stormwater in accordance with permit requirements for Low-Impact Development, and City of Oakland SCA 75: Stormwater Pollution Prevention Plan (SWPPP) (for projects on one acre or more); SCA 78: Site Design Measures for Post-Construction Stormwater Management (for projects that create or replace less than 10,000 square feet of impervious surface); and SCA 80: Post-Construction Stormwater Management Plan and SCA 81: Maintenance Agreement for Stormwater Treatment Measures (for projects that create or replace 10,000 square feet or more of impervious surface). The proposed Plan reinforces these requirements, and would include streetscape improvements that promote increased on-site infiltration. Groundwater recharge would not be expected to be significantly affected due to the current amount of impervious surface area. Adherence to existing requirements would result in a less than significant impact related to groundwater recharge.

Mitigation Measures

None required.

Impact HYD-3

Implementation of the proposed Plan would not result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters. (*Less than Significant*)

Potential impacts concerning water quality standards and waste discharge requirements may be considered in two categories: impacts that could occur during construction, and impacts that could result from development over time.

Construction Impacts

Construction activities following the Station Area Plan could include excavation, soil stockpiling, boring, and/or grading activities. Soil erosion could potentially occur during construction, resulting in water quality problems in receiving waters could include turbidity, increased algal growth, oxygen depletion, or sediment buildup, thereby degrading aquatic habitats.

These potential effects are addressed by existing regulations. Development projects that would disturb one acre or more are required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), in accordance with the SWRCB's General Construction Permit. Construction projects that would disturb one acre or more are required to prepare and implement an SWPPP, in accordance with the SWRCB's General Construction Permit. The SWPPP would include erosion control measures such as:

- Limiting excavation and grading activities during the dry season only (April 15 to October 15), to the extent possible. This would reduce the chance of severe erosion from intense rainfall and surface runoff, as well as the potential for soil saturation in swale areas.

- If excavation does occur during the rainy season, stormwater runoff from the construction area can be regulated through a stormwater management/erosion control plan that may include temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material are generally covered and runoff diverted away from exposed soil material. Sediment basin/traps would be located and operated to minimize the amount of offsite sediment transport. Any trapped sediment would be removed from the basin or trap and placed at a suitable location on-site, away from concentrated flows, or removed to an approved disposal site.
- Temporary erosion control measures would be provided until perennial revegetation or landscaping is established that can minimize discharge of sediment into receiving waterways.
- After completion of grading, erosion protection would be provided on all exposed soils either by revegetation or placement of impervious surfaces. Revegetation would be facilitated by mulching, hydroseeding, or other methods and initiated as soon as possible after completion of grading and prior to the onset of the rainy season (by October 15).
- Permanent revegetation/landscaping shall emphasize drought-tolerant perennial ground coverings, shrubs, and trees.
- BMPs selected and implemented for the project shall be in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained regularly and cleared of accumulated sediment as necessary.
- Hazardous materials such as fuels and solvents used on the construction sites shall be stored in covered containers and protected from rainfall, runoff, and vandalism. A stockpile of spill cleanup materials shall be readily available at all construction sites. Employees shall be trained in spill prevention and cleanup, and individuals should be designated as responsible for prevention and cleanup activities.

For those project components that would disturb less than one acre of land, City of Oakland Municipal Code section 13.16.100 (City Of Oakland Creek Protection, Storm Water Management and Discharge Control Ordinance) would still be required. The ordinance requires the use of standard Best Management Practices to prevent pollution or erosion to creeks and/or storm drains. The City of Oakland has numerous SCAs relating to stormwater runoff from construction. These include SCA 34 (Erosion and Sedimentation Control) and 35 (Hazards Best Management Practices), which apply to all construction projects; SCA 55 (Erosion and Sedimentation Control Plan), 64 (Environmental Site Assessment Reports Remediation), and 68 (Best Management Practices for Soil and Groundwater Hazards), which apply to all projects that require a Grading Permit except for those on steep slopes. Additional SCAs apply to projects of one acre or more, including the requirement for a Stormwater Pollution Prevention Plan (SCA 75) and others. Incorporation of best management practices as required by numerous existing regulations would reduce this potential impact on water resources during construction to a less than significant level.

Impacts from Developed Land

After construction, new development has the potential to result in increased stormwater runoff and pollutants entering receiving waters. However, the Planning Area is already highly urbanized. Potential development sites are located on existing parking lots or underutilized commercial sites, and not on undeveloped land where runoff could be associated with new sources of erosion. As development occurs, on-site drainage will be designed to retain, capture and convey increased runoff in accordance with permit

requirements of the ACCWP and the City of Oakland's SCAs. Stormwater flows generated from the Planning Area may be expected to generally remain unchanged, or potentially decrease. The urbanized character of the Planning Area, together with adherence to existing permit requirements and City of Oakland SCAs would result in a less than significant water quality impact from the operation of new development. The proposed Station Area Plan includes additional policies that require stormwater runoff to be minimized, but the additional policies are not needed to reduce this impact to less than significant levels.

Mitigation Measures

None required.

Impact HYD-4

Implementation of the proposed Plan would not result in substantial flooding on- or off-site. (*Less than Significant*)

Development under the proposed Plan could result in intensification of the built environment, potentially causing additional runoff. Runoff could be discharged more swiftly, decreasing the time it takes to reach downstream facilities and altering the existing peak flood timing. Stormwater runoff in the Planning Area is collected through various storm drain systems and culverts, as well as direct surface flow to the San Francisco Bay, via the Oakland Estuary or by way of Lake Merritt. As noted under Impact HYD-3, the proposed Plan is not expected to increase the amount of stormwater entering the system.

New site development and roadway improvements will require compliance with SCA 34 (Erosion and Sedimentation Control), applying to all construction projects; SCA 55 (Erosion and Sedimentation Control Plan), applying to all projects that require a Grading Permit except for those on steep slopes; and SCA 75 (Stormwater Pollution Prevention Plan), applying to all projects of one acre or more . NPDES permit and other regulatory requirements for Low Impact Design, including infiltration, reuse, or evapotranspiration of stormwater will limit any increase in flows—and could decrease flows—to the existing pipe network. Adherence to existing regulations will reduce the potential flooding impact to less than significant.

Mitigation Measures

None required.

Impact HYD-5

Implementation of the proposed Plan would not create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems. (*Less than Significant*)

Development under the proposed Plan could result in intensification of the built environment, potentially causing additional runoff. This runoff could potentially exceed the capacity of existing or planned stormwater facilities. As noted, the proposed Plan is not expected to increase the amount of stormwater entering the system.

New site development and roadway improvements will require compliance with SCA 34 (Erosion and Sedimentation Control), SCA 55 (Erosion and Sedimentation Control Plan), and SCA 75 (Stormwater Pollution Prevention Plan). NPDES permit and other regulatory requirements for Low Impact Design will limit any increase in flows—and could decrease flows—to the existing pipe network. Adherence to existing regulations will reduce the potential impact to the stormwater drainage system to less than significant.

Mitigation Measures

None required.

Impact HYD-6

Implementation of the proposed Plan would not create or contribute substantial runoff which would be an additional source of polluted runoff, or otherwise substantially degrade water quality. (*Less than Significant*)

As described under Impacts HYD-4 and HYD-5, development under the proposed Plan could result in intensification of the built environment, potentially causing additional runoff. This runoff could potentially be an additional source of polluted runoff.

This potential effect is addressed by existing regulations. Development projects that would disturb one acre or more are required to prepare and implement an SWPPP, in accordance with the SWRCB's General Construction Permit. For those project components that would disturb less than one acre of land, City of Oakland Municipal Code section 13.16.100 (City Of Oakland Creek Protection, Storm Water Management and Discharge Control Ordinance) would still be required. The ordinance requires the use of standard Best Management Practices to prevent pollution or erosion to creeks and/or storm drains. The City of Oakland has numerous SCAs relating to stormwater runoff from construction. These include SCA 34 (Erosion and Sedimentation Control) SCA 35 (Hazards Best Management Practices), SCA 55 (Erosion and Sedimentation Control Plan), SCA 64 (Environmental Site Assessment Reports Remediation), SCA 68 (Best Management Practices for Soil and Groundwater Hazards), and SCA 75 (Stormwater Pollution Prevention Plan). The proposed Plan would not have the potential to degrade water quality in ways not covered under these previous impact discussions. Incorporation of best management practices as required by numerous existing regulations would reduce this potential impact on water resources during construction to a less than significant level.

Mitigation Measures

None required.

Impact HYD-7

Implementation of the proposed Plan would not place housing or other structures within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, where they would impede or redirect flood flows. (*Less than Significant*)

In the Planning Area, only a small amount of land directly adjacent to Lake Merritt and Lake Merritt Channel is within the 100-year flood plain. Most of this land is public park land. The 100-year flood zone

affects only one developable property, the site of the Oakland Unified School District administration building. The flood zone only affects a narrow band along this property's western edge. This site is projected to be developed as a mixed-use, high-rise building, with retail on the ground floor and housing above. Future development of this property would be required to follow all Building Code regulations regarding floodplain development, as well as all stormwater regulations described in this chapter, SCA 89 and 90, and the Creek Protection Ordinance. With implementation of these regulations, the potential impact from flooding would be less than significant. New development on this site or any other site along the Channel will also be subject to the proposed Plan policy to maintain a 100-foot setback, but this is not needed to reduce the potential impact.

Mitigation Measures

None required.

Impact HYD-8

Implementation of the proposed Plan would not expose people or structures to a substantial risk of loss, injury, or death involving flooding. (*Less than Significant*)

As described under Impacts HYD-8 and HYD-9, only a small amount of land directly adjacent to Lake Merritt and Lake Merritt Channel is within the 100-year flood plain. Any future development here would be required to follow all Building Code regulations regarding floodplain development, as well as all stormwater regulations described in this chapter, SCA 89 and 90, and the Creek Protection Ordinance. With implementation of these regulations, the potential exposure of people or structures to a substantial risk of loss, injury or death involving flooding would be less than significant.

Sea Level Rise

CEQA requires the analysis of potential adverse effects of the project on the environment. Potential effects of the environment on the project, such as the impact of flooding related to sea level rise, are legally **not** required to be analyzed or mitigated under CEQA. However, this document nevertheless analyzes potential effects of the environment on the project in order to provide information to the public and decision-makers. Where a potential significant effect of the environment on the project is identified, the document, as appropriate, identifies City SCAs and/or project-specific non-CEQA recommendations to address these issues. The impact of future growth in the Plan Area on the environment related to the project's GHG emissions—the cause of sea level rise—is analyzed and discussed in Section3.4, Climate Change and Greenhouse Gases.

As presented in the Environmental Setting section, there is considerable variation between projections of future sea level rise. Under the high-end estimate presented by the California Climate Change Center and reinforced by Pacific Institute, sea level along the California coast would rise by 16 inches by 2050 and 55 inches by 2100. Reports by the State of California and the San Francisco Bay Conservation and Development Commission (BCDC) recommend that local and State agencies use the upper end of this range in planning for sea level rise.

Very little of the Planning Area is likely to be subject to potential sea level rise, and no sites where future development is anticipated are likely to be affected. By 2100, the Peralta Community College District Administration site could be substantially affected, but the Station Area Plan does not project new

development here. Furthermore, the current BCDC model for potential sea level rise does not take into account shoreline protective structures, which may have the effect of shielding Planning Area sites from flooding even under higher water level conditions. Portions of the Planning Area potentially exposed to 16-inch and 55-inch sea level rise are being studied as part of BCDC's *Adapting to Rising Tides* project, which has already assessed existing conditions and vulnerability and risk to specific existing key asset categories. The project will further identify potential adaptation strategies to mitigate the effects of sea level rise. Adaptation strategies will likely require the involvement of regional, state and federal partners. The adopted Bay Plan and Oakland's Draft Energy and Climate Action Plan (ECAP) specifically recognize this and include actions to participate in the preparation of a regional climate adaption strategy.

Notably, the Station Area Plan requires a buffer between any new development and Lake Merritt Channel, which could help to ensure that new development on the OUSD site and the City-owned remainder site would not be at risk. It is reasonable to anticipate that sea level rise modeling will be integrated into flood hazard planning, including the FEMA flood zone maps. As this occurs, General Plan policies in the Safety Element, SCAs related to construction within 100-year flood zones, and adaptive management measures to sea level rise would reduce these potential impacts. As stated above, because sea level rise is an impact of the environment on the project, it is not legally a CEQA impact.

Mitigation Measures

None required.

Impact HYD-9

Implementation of the proposed Plan would not expose people or structures to a substantial risk of loss, injury, or death as a result of seiche, tsunami, or mudflow. (*Less than Significant*)

Only a small portion of the Planning Area along Lake Merritt Channel is within the area most likely to be inundated in the rare event of a tsunami, according to the California Geological Society. The identification of this tsunami zone is intended to provide planning agencies with the information needed for emergency response planning, and does not restrict land use or development. Seiches are waves in an enclosed or semi-enclosed body of water such as a lake, reservoir or harbor. The Safety Element reports that there is no data on the local occurrence or impact of seiches, as none has ever been recorded in the Bay Area, and Lake Merritt is likely too shallow to be able to generate devastating seiches. Mudflows are not a threat given the area's flat topography. The potential impact of these hazards to development under the Station Area Plan is less than significant.

Mitigation Measures

None required.

Impact HYD-10

Implementation of the proposed Plan would not substantially alter the existing drainage pattern of the area, including through the alteration of the course or increasing the rate or amount of flow of a creek in a manner that would result in substantial erosion, siltation, or flooding both on- or off-site. (*Less than Significant*)

The proposed Plan would not directly alter the course or increase the rate or amount of flow of a creek. Intensification of the built environment following the proposed Plan has the potential to result in increased runoff. However, the potential effects on drainage patterns of construction and permanent development are addressed by existing regulations. Construction projects that would disturb one acre or more are required to prepare and implement an SWPPP, in accordance with the SWRCB's General Construction Permit. For those project components that would disturb less than one acre of land, City of Oakland Municipal Code section 13.16.100 (City Of Oakland Creek Protection, Storm Water Management and Discharge Control Ordinance) would still be required. The City of Oakland has numerous SCAs relating to stormwater runoff. These include SCA 34 (Erosion and Sedimentation Control), SCA 55 (Erosion and Sedimentation Control Plan), and SCA 75 (Stormwater Pollution Prevention Plan) and others. In addition, development along Lake Merritt Channel will be required to comply with SCA 82 through 88, which will ensure compliance with the Creek Protection Ordinance. Incorporation of best management practices as required by numerous existing regulations would reduce the potential for development to indirectly result in substantial erosion, siltation or flooding to a less than significant level.

Mitigation Measures

None required.

Impact HYD-11

Implementation of the proposed Plan would not fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrological resources. (*Less than Significant*)

The City of Oakland Creek Protection Ordinance prohibits non-storm water discharges to the municipal storm drainage system unless the discharge is separately regulated under an NPDES permit and is in full compliance with that permit. Pollutants that could enter the storm drainage system are to be eliminated to the greatest extent feasible. Development on creekside properties requires a creekside protection permit, which requires different degrees of documentation and review depending on the potential impact that development could have on the creek.

All properties in the Planning Area are subject to the Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater discharges. Development along Lake Merritt Channel subject to a Creek Protection Permit under the Ordinance will be required to prepare and implement of an SWPPP. Most of the land along the Channel is publicly-owned park land, and all of this land was evaluated as part of the Measure DD Implementation Project EIR. Additional land between I-880 and the Estuary is also proposed for future parkland development under the Station Area Plan. Proposed park enhancements along the Channel will include both manual activities (e.g., planting and weeding), and activities that use heavy machinery such as creek bed or bank grading, culvert or concrete channel alterations.

For those activities that involve heavy machinery or equipment to excavate or move soil, to demolish structures, or to realign stream banks or waterways, Creek Protection Permits are required under the Ordinance. For projects that meet the Category III or IV criteria based on location of the work in relation to the creek, a creek protection plan is required to describe the best management practices that will be

employed to assure construction activity will not adversely impact creek bank, riparian corridor, or water quality. Successful permits require demonstration that a project would minimize erosion and sedimentation in accordance with the Manual of Standards for Erosion and Sediment Control Measures. For Category IV projects, within 20 feet of the top of the creek bank, a hydrology report is also required, to assess whether the proposed Plan would modify the natural flow of water, among other things.

A small amount of land designated for urban (non-park) uses also abuts Lake Merritt Channel, at Laney College and Oakland Unified School District properties. If new development occurs here, it will be required to comply with SCAs 82 through 88, which will ensure compliance with the Creek Protection Ordinance. In short, the Station Area Plan supports the continued enhancement of park land along Lake Merritt Channel. Park-related and any other development activity subject to the Ordinance will be required to meet all permit requirements, as well as the City's SCA, reducing this potential impact to less than significant.

Mitigation Measures

None required.

Cumulative Impact HYD-12

Development following the proposed Plan in combination with past, present, and reasonably foreseeable maximum development in Oakland, would not adversely affect water quality and hydrology. (*Less than Significant*)

The proposed Plan, in combination with recent, current, and reasonably foreseeable maximum development as represented by the City's Active Major Development Projects List (Appendix B) could potentially increase impervious surfaces and result in cumulative hydrological impacts. The incremental effects of many projects could potentially contribute to water quality degradation in Lake Merritt and regional water bodies, and increase the risk of flooding.

However, all new development projects are subject to City of Oakland policies, SCAs, and permit requirements. These requirements will ensure that new development both within the Planning Area and throughout Oakland incorporates stormwater retention, stormwater quality control measures, and other Low Impact Development measures. Compliance with existing regulations will make the cumulative impact of development on water quality and other hydrological considerations less than significant. The Station Area Plan proposes streetscape improvements that incorporate stormwater best management practices and requires ample setbacks from Lake Merritt Channel, but these are not required to make the Plan's contribution to this potential impact not cumulatively considerable.

Mitigation Measures

None required.

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3.15 Impacts Not Potentially Significant

This section provides evaluation of impacts for topics that were determined to have impacts that were not potentially significant: Agriculture and Forest Resources and Mineral Resources. A checklist for each impact is followed by discussion.

AGRICULTURE AND FOREST RESOURCES

Table 3.15-1: Agriculture and Forest Resources

Environmental Factors and Focused Questions for Determination of Environmental Impact	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. In determining whether impacts to forest resources, including timberland, are significant environmental effects, refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. The proposed Plan would have a significant impact on the environment if it would:				
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;				✓
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;				✓

Table 3.15-1: Agriculture and Forest Resources

Environmental Factors and Focused Questions for Determination of Environmental Impact	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
3. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g);				✓
4. Result in the loss of forest land or conversion of forest land to non-forest use; or				✓
5. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.				✓

The Planning Area does not contain any agriculture or forest resources within its limits.

MINERAL RESOURCES

Table 3.15-2: Mineral Resources

Environmental Factors and Focused Questions for Determination of Environmental Impact	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
MINERAL RESOURCES – The proposed Plan would have a significant impact on the environment if it would:				
1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or				✓
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.				✓

The Planning Area does not contain any mineral resources within its limits.

Impact Analysis

IMPACTS AND MITIGATION MEASURES

Impact AG-1

Future development under the proposed Plan may affect agriculture and forest resources. (*No Impact*)

There are no agriculture and forest resources in the Planning Area. Therefore, the proposed Plan would have no impact on any agriculture and forest resources.

Mitigation Measures

None required.

Impact MIN-1

Future development under the proposed Plan may affect mineral resources. (*No Impact*)

No mineral resources of value to the region and the residents of the state have been identified at the Planning Area. The Planning Area has not been delineated as a locally important mineral recovery site. Therefore, the proposed Plan would have no impact on any known mineral resources.

Mitigation Measures

None required.

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4 Analysis of Alternatives

The California Environmental Quality Act (CEQA) mandates consideration and analysis of alternatives to the proposed Plan. According to CEQA Guidelines, the range of alternatives "shall include those that could feasibly accomplish most of the basic purposes of the proposed Station Area Plan and could avoid or substantially lessen one or more of the significant impacts" (Section 15126(d)(2)). The alternatives may result in new impacts that do not result from the proposed Plan. Pursuant to CEQA Guidelines, this EIR evaluates a reasonable range of alternatives that seek to reduce potential impacts of the proposed Plan.

Case law suggests that the discussion of alternatives need not be exhaustive and that alternatives be subject to a construction of reasonableness. The impacts of the alternatives may be discussed "in less detail than the significant effects of the project proposed" (CEQA Guidelines §15126.6(d)). Also, the Guidelines permit analysis of alternatives at a less detailed level for general plans and other program Environmental Impact Reports (EIR), compared to project EIRs. The Guidelines do not specify what would be an adequate level of detail. Quantified information on the alternatives is presented where available; however, in some cases only partial quantification can be provided because of data or analytical limitations.

4.1 Background on Development of Alternatives

EIR Alternatives were developed in line with CEQA Guidelines, and based on feedback from the community.

INITIAL DISCUSSION OF ALTERNATIVES

The following six potential alternatives were initially identified for study:

- **No Transportation Impacts Alternative:** This alternative is based on basic sensitivity testing related to trip generation in order to identify how much development could occur in the future and result in no transportation impacts.
- **Alameda County Transportation Commission (ACTC) Defined No Project Alternative:** Assumes continuation of the current General Plan and zoning.
- **Planning Area Trends-Based No Project:** This is a low growth scenario that evaluates future growth in the Planning Area based on trends.
- **Reduced Scope Alternative:** This alternative assumes reduced allowable height for key height areas, thereby reducing the overall development potential in the Planning Area.

- **Enhanced Transportation Demand Management (TDM) Alternative:** This alternative identifies a range of TDM policies the City could consider to reduce future trip generation, such as eliminating minimum parking requirements and adding maximum parking requirements. This alternative assumes the same level of growth as the proposed Plan.

- **Theoretical Maximum Buildout Alternative**: This alternative assumes that every parcel within the Planning Area would be developed to the maximum allowed by proposed land use regulations. Given that the majority of land within the Planning Area is currently developed with a wide variety of existing uses that are likely to remain well into the future, the likelihood of "maximum buildout" occurring is considered so highly unlikely as to be theoretical.

ALTERNATIVES REJECTED FROM FURTHER STUDY

Scoping Comments on Alternatives

Several suggestions for Alternatives were made, which were either rejected from study or incorporated into the alternatives including, as discussed below:

- Study an alternative that looks at a 'middle ground' level of development. This suggestion is considered in the "Reduced Scope Alternative," described below.
- Study a fine grained alternative with a 35 foot height limit on low-scale residential districts. This suggestion is not included, since the existing Plan includes a 45 foot height limit in the 7th Street/Harrison Square historic district and a 45 foot base height in other areas based on the existing context. This suggestion was not deemed to potentially reduce any impacts to less than significant and was not evaluated further.
- Restore development standards (height/FAR, etc.) in place prior to 2009 CBD zoning regulations. This suggestion was not deemed to potentially reduce any significant impacts to less than significant and was not evaluated further. As discussed below, only an alternative that reduces trips compared to existing conditions would be able to reduce traffic impacts to less than significant on certain roadways. Development standards in place prior to 2009 would facilitate growth and therefore generate additional trips in the Planning Area compared to existing conditions. These standards would also not reduce air quality, odor, or historic resources impacts to a less than significant level.
- Amend Plan height and other provisions as suggested in the December 7, 2011letter sent by Oakland Heritage Alliance (OHA). These suggestions were considered as part of the proposed Plan development, and contributed to the Plan's approach.
- Amend height map to establish by-right height of 45 feet (55 feet with a 10 foot setback from the property line for the extra 10 feet in height), with greater height allowed with community benefits based on a Conditional Use Permit (CUP). It was requested that this alternative include at least two analyses, one based on the by-right development standards and a second based on the CUP-allowed standards. A blanket 45 foot by-right height would not meet the proposed Plan goals of high-density Transit-Oriented-Development, and would cause existing buildings in many parts of the Planning Area to be out of conformance. The greater height allowance component of the suggested alternative is not clearly defined, though it may be similar to the proposed Plan which includes a 45 foot base height in many areas, and includes a policy to create a developer incentive

program that would provide community benefits. Given these factors, this suggested alternative was not carried forward.

- Study alternatives to building on top of historic buildings since this approach is too damaging to original structure. Analysis of buildout under the proposed Plan does not assume any building on top of historic buildings. This suggestion does not vary from the proposed Plan. Therefore, this suggestion was not deemed to potentially reduce any impacts to less than significant and was not evaluated further. As discussed below and in the Cultural Resources chapter, no feasible mitigation could be identified that would reduce potential impacts on historic buildings to less than significant, while also ensuring that properties may be put to use.
- The EIR should study Plan alternatives that have lower densities and heights so that we can use the information to make the best decisions for the planning process. This suggestion is considered in the "Reduced Scope Alternative" and "Trends-Based No Project," described below.

No Transportation Impact Alternative

The No Transportation Impact Alternative would result in a Lake Merritt Station Area Plan with a combination of a modified development program and self-mitigating transportation improvements that would be found to have no significant transportation impacts in its environmental assessment. A review of existing traffic conditions and of the impacts identified in the traffic analysis of the ACTC Defined No Project and proposed Plan scenarios is the first step in attempting to define a true No Transportation Impact Alternative because any existing deficiency or any impact in the two scenarios that cannot be feasibly mitigated to less than significant through land use measures and/or transportation improvements, prevents the alternative from meeting the definition of the No Transportation Impact alternative.. Review of existing traffic conditions and the cumulative (year 2035) traffic analyses prepared for the ACTC Defined No Project and proposed Plan identified locations having significant and unavoidable impacts, on segments of the I-880 and I-980 freeways, where there are no feasible mitigation measures. Significant and unavoidable traffic impacts in these locations are due to both "existing deficiencies" and cumulative traffic growth on Caltrans facilities that does not originate from the Planning Area. In other words, the facilities today are not able to handle the traffic they carry and meet performance thresholds, and cumulative growth in traffic exacerbates existing deficiencies and causes additional impacts to freeway segments. Because of these existing and future No Project conditions, any new growth or increase in traffic generated by an Alternative would result in significant and unavoidable impacts. The only alternative that would eliminate these impacts would have to result in negative trip generation, meaning that it would reduce traffic compared to existing conditions. An alternative with negative trip generation is not considered a feasible scenario and therefore, a No Transportation Impact alternative is infeasible.

Other Areas of Significant and Unavoidable Impacts

In regards to Air Quality, there are no feasible mitigation measures related to exposure to gaseous TACs or odors, indicating that these issue areas would continue to be significant and unavoidable under any alternative.

Potential impacts on historic resources are also significant and unavoidable under all alternatives. Many existing regulations will be effective in preserving historic resources in the Planning Area, but they do not guarantee that no designated or potentially designated historic property would experience a substantial adverse change that would materially impair its historical significance. No further mitigation measures are

feasible that will ensure protection of historic resources while also ensuring that property owners retain an option for use of their property where reuse or incorporation into new development is not feasible.

Conclusion

Upon the initial assessment, it was concluded that a feasible No Transportation Impact alternative cannot be defined and there are no other feasible alternatives that would reduce significant traffic, air quality or historic resources impacts.

4.2 Description of Alternatives

- This chapter describes and evaluates five alternatives: the ACTC Defined No Project Alternative, the Trends-Based No Project Alternative, the Reduced Scope Alternative, the Enhanced TDM Alternative, and the Theoretical Maximum Buildout Alternative, and compares them to the proposed Plan, using the thresholds of significance listed in Chapter 3. Two of the alternatives are directly based on the proposed Plan; the Reduced Scope Alternative would generally include the same policies as those defined for the proposed Plan excluding site-specific policies that would not apply because of differences in planned building height. The Enhanced Transportation Demand Management (TDM) Alternative would include the same policies as the proposed Plan, with additional policies for implementing more robust TDM measures. The remaining two alternatives—the ACTC Defined No Project Alternative and the Planning Area Trends-based No Project Alternative—are not based on the proposed Plan and, therefore, do not include any of the policies from the proposed Plan. The land use assumptions for each alternative are summarized below while **Table 4.2-1** compares the development potential of the proposed Plan to each alternative, with existing conditions information provided for context. The ACTC Defined No Project Alternative assumes a similar amount of growth as the proposed Plan, since both scenarios are consistent with ACTC/ABAG projections by Traffic Analysis Zone (TAZ). The primary difference between them being the location of growth and in the amount and distribution of types of jobs.

- The Trends-Based No Project Alternative assumes that the growth in the Planning Area remains consistent with recent trends, which results in just under half the amount of residential and office growth, and about 20 percent of the retail growth, compared to the proposed Plan.
- The Reduced Scope Alternative results in 1,000 fewer units and 2,100 fewer residents than the proposed Plan, a 20 percent reduction.
- The Enhanced Transportation Demand Management (TDM) Alternative assumes the same amount of growth as the proposed Plan, with the addition and augmentation of robust TDM policies.
- The Theoretical Maximum Buildout Alternative results in substantially more growth that the project, resulting in about 32,000 additional residential units and 32.7 million additional square feet of commercial space, which is about 7 times more growth in residential units and 19 times more growth in commercial space that in the proposed Plan.

Table 4.2-1: Comparison of Potential New Development by Alternative (2035)

		Net New Development					
	Existing Conditions	*Proposed Plan*[7]	*ACTC Defined No Project*[8]	*Trends-Based No Project*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*Theoretical Maximum Buildout Alternative*
Residential Units[1]	3,000	4,900	4,900	2,300	3,900	4,900	32,600
Households[2]	2,900	4,700	4,700	2,200	3,700	4,700	31,000
Population[3]	6,100	9,900	9,900	4,600	7,800	9,900	93,000
Retail Square Feet[4]	843,000	404,000	161,000	71,000	283,000	404,000	7,596,000
Office Square Feet	1,022,000	1,229,000	1,134,000	540,000	979,000	1,229,000	23,109,000
Institutional Square Feet	3,467,000	108,000	316,000	300,000	108,000	108,000	2,031,000
Jobs[5, 6]	17,800	4,100	4,200	1,600	3,200	4,100	81,500
Parks (acres)	23.6	10.9	4.7	4.7	10.9	10.9	4.7

Notes:

1. Existing residential units are based on ACTC/ABAG projections for 2005, plus projects completed between 2005 and 2012.
2. Households assume a 5 percent vacancy rate in the residential units.
3. Population assumes 2.1 people per household.
4. Existing non-residential square feet are estimated based on existing building footprint square footage, multiplied by the number of stories in existing buildings.
5. Existing jobs are based on ACTC/ABAG projections for 2005
6. Plan jobs are based on one job for every 350 square feet of retail space, one job for every 400 square feet of office space, and one job for every 1,000 square feet of institutional
7. Net new development assumes reductions for any existing land uses.
8. No Project is defined by ACTC/ABAG projections 2005-2035 by TAZ minus projects completed between 2005 and 2012 (which are included in the existing condition).

ACTC DEFINED NO PROJECT ALTERNATIVE

The ACTC Defined No Project Alternative assumes no adoption of the proposed Plan and continuation of land use development under the current City of Oakland General Plan, as reflected in the Alameda County Transportation Commission (ACTC)/ABAG Projections for 2035, by Traffic Analysis Zone (TAZ). Note that while total projected households and jobs for 2035 are very close for the proposed Plan and ACTC Defined No Project Alternatives, development varies by location and by the types of jobs. More specifically, the northern tier of the Planning Area would be expected to experience more population growth—and thus residential development—under the ACTC Defined No Project than under the proposed Plan, as would the southwest quadrant. Meanwhile, central portions of the Planning Area would experience more residential growth under the proposed Plan than under the ACTC Defined No Project, as would the Eastlake Gateway Plan District. As for jobs, the Chinatown Commercial Core and the west side of the Planning Area in general would see more job growth under the ACTC Defined No Project than under the proposed Plan, while the central and northern sections of the Planning Area would

gain more jobs under the proposed Plan than under the ACTC Defined No Project. The proposed Plan is associated with more jobs in the Retail, Service, and Office sectors, while the No Project scenario would include more jobs in the Institutional, Manufacturing, Wholesale, and Other categories.

As stated above, the ACTC Defined No Project Alternative would result in virtually the same overall population and job growth as the proposed Plan, with approximately 200 fewer persons and fewer than 100 more jobs compared to the proposed Plan.

PLANNING AREA TRENDS-BASED NO PROJECT ALTERNATIVE

The Planning Area Trends-Based No Project Alternative is a low growth scenario that assumes no adoption of the proposed Plan and assumes future growth in the Planning Area based on current and historic trends, including:

- Projects with applications in the Planning Area,
- Laney College and County office expansion (assuming they will proceed regardless of the status of the proposed Plan),
- Pipeline projects and
- Extrapolated additional development through 2035 based on the number of units and square feet of retail development completed within the Planning Area boundary between 2005 and 2012.

Overall, this alternative results in just under 50 percent of proposed Plan residential development, 44 percent of the proposed Plan office development, 18 percent of the proposed Plan retail development, and 186 percent of the proposed Plan institutional development. This represents the lowest growth alternative studied. The Planning Area Trends-Based No Project Alternative may be a more reasonable growth projection than the ACTC Defined No Project Alternative given historic growth patterns, and reflects the circumstance under which the proposed Plan is not approved and growth in the Planning Area continues along similar trends witnessed since 2005.

REDUCED SCOPE ALTERNATIVE

The Reduced Scope Alternative identifies reduced allowable heights for key height areas where community feedback has indicated some interest in lower overall heights. The reduced height scenario thereby reduces the overall development potential in the Planning Area. Key height reductions identified for this Alternative include:

- Reduce maximum height in Height Area 8 from 400 to 275 feet, except on BART blocks. This would mean lower allowable heights between 11th and 13th Streets and between Madison and Webster Streets, including the full-block opportunity site (Site 15) bounded by 11th, 12th, Harrison and Webster Streets.
- Reduce maximum height in Height Area 7 from 275 to 175 feet. This would mean lower allowable heights between 13th and 14th Streets and Madison and Harrison Streets, including the full-block opportunity site (Site 6) bounded by 13th, 14th, Jackson and Alice Streets. It would also mean lower heights at the southwest corner of the Planning Area, including the full-block opportunity site (Site 31) bounded by 6th, 7th, Webster and Franklin Streets.

- Reduce maximum height in portion of Height Area 4 in the Eastlake Gateway Plan District from 275 to 175 feet. This would cover blocks bounded by 1st and 2nd Avenues, East 10th and East 12th Streets, including Opportunity Site 44 at East 12th Street and Lake Merritt Boulevard.
- Reduce maximum heights for Opportunity Sites 19, 22, and 21 in Height Area 4 from 275 feet to 100 feet (eight stories). These sites are located in the Planning Area on the blocks bounded by 9th and 11th Streets, Madison and Oak Streets, and at the corner of 9th and Fallon Street.

For reference, see **Figure 2.3-2** in Chapter 2 for the Lake Merritt Station Area Plan's Draft Height Areas, and **Figure 2.5-1** for the location of opportunity sites. Buildout assumptions for the proposed Plan are detailed in the Methodology & Assumptions sub-section of section 3.1 (Land Use and Housing) of this Draft EIR.

For the Reduced Scope Alternative, development potential assumptions are adjusted to reflect 12-story towers rather than 25-story towers in all height areas that were reduced, except where specific development projects are already in the pipeline (opportunity sites 12, 30 and 32) or where the Alameda County Master Plan identifies future development (sites 11 and 13). The BART blocks were also specifically not proposed for lower height limits. In addition, opportunity sites 19, 21, and 22 were reduced from 12 to six stories. The total units on each of the site where towers are projected to be lower than under the proposed Plan (opportunity sites 6, 15, 19, 21, 22, 31 and 44) were reduced by half accordingly. The Reduced Scope Alternative results in 1,000 fewer units and 2,100 fewer residents when compared to the proposed Plan, a 20-percent reduction.

In addition, the Reduced Scope Alternative assumes that future redevelopment of the MTC/ABAG site would not include an office component as expected under the proposed Plan. This would translate to an approximately 20 percent reduction in office development. Consistent with the overall decrease in residential and office development and the mixed-use nature of the retail development in the Planning Area, it is also assumed that retail development would be reduced by about 30 percent overall. This is in part due to the decrease in residents and employees using the area and therefore reduced demand for new retail services. These reductions result in 900 fewer jobs than the proposed Plan.

ENHANCED TRANSPORTATION DEMAND MANAGEMENT (TDM) ALTERNATIVE

The Enhanced TDM Alternative focuses on the addition of a range of transportation demand management measures and parking management strategies that could be incorporated into the proposed Plan, and that are expected to have some level of specific trip-reduction implications. However, TDM and parking management measures and strategies in of themselves have little ability to substantially reduce traffic. The measures and strategies described in the alternative support and strengthen the high non-auto mode share inherent to the Planning Area due to its robust transit system, the cost and scarcity of its urban parking system, and its walkable environment. The policies in this alternative are in addition to improved pedestrian, bicycle, transit access, and TDM policies identified in the proposed Plan or augment proposed Plan policies. As a policy-focused alternative, it assumes the same amount of overall growth as the proposed Plan.

The Enhanced TDM Alternative has four policy components intended to create a robust traffic and parking management system. The alternative proposes state-of-the-practice techniques developed for use in urbanized places where the socioeconomic and demographic attributes of the population boost the effectiveness of the measures and strategies. The components and their objectives are described below.

- **Off-Street Residential Parking Standards.** Policy introducing strategies designed to reduce the amount of parking required of residential development and/or to restrain the building of excessive off-street parking spaces. This policy has the following objectives:
  - To lower the cost of constructing infill residential development, especially on smaller parcels where the cost of subterranean parking can make development infeasible;
  - To provide quality developments and financial incentives that attract households with the most desirable attributes for a transit-oriented district: smaller households of one or two persons without children; households that own fewer vehicles (zero or one), households representing a mix of income levels, but with some concentration of lower income households; and households comprising an ethnically diverse population.

- **Parking Management District.** The intent of a parking management district is to regulate parking supply and rates at the level that meet the district's parking needs of the area, while at the same time as promoting transit, bicycling and walking for all daily needs. The primary objectives of the district are: (1) to provide an optimal level of parking supply that meets the districts needs without any under-utilized excess supply, and (2) to establish pricing policies that maintain a low drive-alone mode share and ensure available short-term parking spaces in retail intensive areas. Secondary objectives include brokering available parking supply to maximize utilization, recognizing the importance of goods movement and deliveries to Plan area businesses and accommodating them with loading area options; promote parking optimization techniques like valet parking; protect residential neighborhoods from intrusive all-day parking; and preserve and augment the supply of on-street parking.
- **Bicycle Parking.** The objective of this policy is to ensure the convenience of, and maximize the supply of, secure bicycle parking facilities. The policy, in combination with its sister policies, promotes and/or requires new development to provide changing facilities for bicyclists.
- **Employer Based TDM Measures.** In combination with a Transportation Management Association (TMA) to manage basic TDM programs, employer-based programs can have the greatest impact of changing employee travel behavior. The objectives of this policy is to require employers to implement the most effective TDM measures, particularly those that provide financial incentive to the employee, such a parking cashout program.

Proposed policies, their relationship to proposed Plan policies, and expected outcomes from identified policies are outlined in **Table 4.2-2.**

Table 4.2-2: Comparison of Relevant Proposed Plan and Enhanced TDM Alternative Measures and Policies

Proposed Plan TDM Policy	*Enhanced TDM Alternative Policy Augmentation or Addition*	*Additional Trip Reduction, Benefits or Other Effects Assumed for Alternative*
Off-Street Residential Parking Standards		
Parking requirements. Reduce parking minimum requirements in the entire Planning Area. **Unbundled parking cost.** Encourage new residential development to unbundle the cost of parking from housing cost.	Eliminate minimum parking requirements. Require unbundling parking spaces from units and require a minimum charge (set by the City) to lease unbundled spaces. Establish a maximum parking ratio of one space per unit. Require new housing development to reserve a minimum of 10% of units for zero auto ownership households with deed or lease restrictions on the sale, lease or rental of on-site unbundled parking spaces to these units for a period of at least 15 years. Encourage residential and mixed-used development to achieve at least a bronze rating for LEED (Leadership in Energy and Environmental Design) specifically meeting goals for transportation and parking credits (approx. a 10% reduction in parking supply from current standards).	**Estimated percent reduction in peak hour trips:** Note: there are no studies to date that empirically measure the effect of parking maximums and unbundling parking in residential development. Establishing a parking ratio of 1.0 space per unit increases transit mode share for residential uses to 29.7%. Requiring new housing development to reserve a minimum of 10% of units for zero auto ownership [a] households increases transit mode share [b] to 56.4% for those households. The trip reduction effect of proposed parking policies was derived from data in the 2000 Bay Area Household Travel Survey weekday travel characteristics by household vehicle availability. [a] In 2000, 29% of the households within ½-mile of a Bay Area rail station were zero-auto ownership households. [b] Transit mode share (all trip purposes) for residents living within the study area without the proposed parking policies (proposed Plan) is 25.1%.
Parking Management		
Off-street parking visibility	**Parking management district.**	"A look at several recent

Table 4.2-2: Comparison of Relevant Proposed Plan and Enhanced TDM Alternative Measures and Policies

Proposed Plan TDM Policy	*Enhanced TDM Alternative Policy Augmentation or Addition*	*Additional Trip Reduction, Benefits or Other Effects Assumed for Alternative*
and use. Improve the visibility and use of existing private and public off-street parking lots with pedestrian-oriented lighting and directional signage for drivers. **New public parking.** Encourage new development on existing public parking garages. **Parking pricing.** Study the efficacy of increasing on-street parking rates in high demand locations and reducing costs in less used areas (such as in off-street parking garages) to make the best use of available spaces. Implement a marketing program to educate the public about available parking areas and varied costs. **Enforcement.** Increase enforcement of time limits for on-street parking in the Chinatown core.	Implement the following programs within a parking management district: Require new non-residential development participate in a Transportation Management Association (TMA) with one of its primary functions to offer parking brokerage services so development or parking facilities can lease or rent their excess parking capacity to property owners or commercial tenants within the district for employees or customers. Grant conditional use permits for non-residential uses to implement valet parking including the use of curb parking spaces for valet stations. Implement Dynamic Parking Pricing for on-street parking within the commercial core to maintain the availability of short-term parking spaces in the most desirable locations and as a form of congestion pricing. Establish areas of concentrated lower cost on-street parking in the fringe of the commercial core. Concentrated parking areas may reconfigure local streets for angled parking, use median areas for parking, create reduced length parallel spaces for compact vehicles, etc. Implement Residential Permit Parking districts to reduce spillover impacts in residential neighborhoods. Establish, and strictly enforce, three types of curbside loading zones based on a comprehensive needs study; (1) permanent (24-hour) zones within the commercial core and retail/restaurant-intensive areas; (2) limited time zones reserved for loading during off-peak periods and which revert to general parking; and (3) use of median area (e.g., CTWLTL) on designated local	studies show that "parking search" traffic accounts for between 30% and 45% of all traffic in dense urban districts. Therefore, parking management is integral to any transportation demand management program" (Seattle Urban Mobility Plan, 2008). **Estimated percent reduction in peak hour trips:** Parking management strategies balance achieving and preserving an optimal parking supply with disincentives to driving personal vehicles and parking all day. The creation of a Parking Management District has several objectives. Parking management strategies support and strengthen the non-auto mode share inherent to the Plan area's robust transit system, reduced parking supply, and walkable environment, and don't, in of themselves, substantially reduce peak hour traffic. The combined trip reduction effectiveness of the parking management strategies listed is estimated at 3% of all trip purposes.

Table 4.2-2: Comparison of Relevant Proposed Plan and Enhanced TDM Alternative Measures and Policies

Proposed Plan TDM Policy	*Enhanced TDM Alternative Policy Augmentation or Addition*	*Additional Trip Reduction, Benefits or Other Effects Assumed for Alternative*
	and collector streets in retail/restaurant-intensive areas. Encourage property owners/building management to permit use of private off-street loading docks for use by common delivery service providers (e.g., United Parcel Service, Federal Express, etc.) for deliveries within a one block radius of the building.	
Bicycle Parking		
On-street bicycle parking. Install on-street bicycle parking, at major destinations such as the Chinatown core, the Main Library, Laney College, Lincoln Elementary, and the OUSD Downtown Campus.	In addition to bicycle parking required of new development, require all new development (Residential and Commercial) to provide public bicycle racks within the streetside along the development's street frontage with capacity based on the percentage of the block face fronted by the development. When converting on-street parking meters to a centralized pay-box system, retain the parking meters for use as bicycle parking. Consider replacing the meter tops with ornamental fittings and signs stating the meters remain as a convenience to bicyclists.	Note that the City already requires bicycle parking in new development.
Employer Based TDM Measures		
Transportation demand management. Require new large employers to implement Transportation Demand Management (TDM) measures, and encourage existing employers such as Laney College and Alameda County to implement similar measures, such as: - Designate a TDM coordinator who would distribute information to employees to promote TDM programs.	**Transportation demand management**. In addition to required participation in the TMA (for basic TDM services), require existing and new large employers to implement TDM plans that must integrate the following measures: - New employee orientation of transportation options, employer-based programs, and TMA services - Implement employee parking charges for new employers who	Estimated percent reduction in peak hour trips: Employer-based TDM programs are effective, especially in combination with the services provided by a TMA. It is important to note the listed TDM measures support and strengthen the non-auto mode share inherent to the Plan area's robust transit system, managed parking, and walkable environment. Employer-based TDM

Table 4.2-2: Comparison of Relevant Proposed Plan and Enhanced TDM Alternative Measures and Policies

Proposed Plan TDM Policy	*Enhanced TDM Alternative Policy Augmentation or Addition*	*Additional Trip Reduction, Benefits or Other Effects Assumed for Alternative*
- Carpool and vanpool ride-matching services and provision of car sharing parking spaces. - Guaranteed Ride Home Program, which allows transit users and car/vanpoolers access to free or reduced taxi service to get home in case of an emergency. - Subsidized transit passes for area employees and/or a parking cash-out program. - Bicycle parking, both short and long term, located near entrances. - Showers and lockers.	provide on-site employee parking. - Implement a parking cashout program for employers who provide on-site employee parking or who subsidize off-site employee parking. - Provision of pre-tax transit fare purchase (Commuter Check with direct value load to Clipper cards or equivalent universal transit fare pass). - Reserve parking spaces within on-site garages for carshare vehicles, and provide employer-sponsored membership in a carshare program for business use and personal errands. Develop flexible work schedules and/or compressed work weeks for qualifying employees, support telecommuting through funding high-speed internet service, and employer-provided laptops, and/or leasing space in satellite telework centers.	programs can be custom-tailored to the unique needs of the employees, and therefore moderately effective in persuading employees to shift away from driving alone, and highly effective in increasing the use of other modes by employees who use alternative modes only part-time. The effectiveness is the result of a combination of complementary measures—the measures do not have an additive effect. The combined trip reduction effectiveness of employer-based TDM programs containing all of the measures (to varying degrees depending on the demographic and socio-economic characteristics of the workforce) is estimated to range from 23% to 26% of home-based-work trips.
Other Transportation Demand Policies		
(No similar policy in the proposed Plan).	Adopt development standards that require the following: - Provide showers and locker rooms for tenants who bicycle or walk to work. - Permanently reserve the most convenient parking spaces for car and vanpools in development with on-site parking. - Provide space that meets the requirement for installation of an ATM machine. Additional Policies Supporting TDM - Require new development tenanted with large employers to provide new employees with a 6-month universal transit pass free	The additional supportive TDM measures listed is estimated to achieve a 2% increase in the non-auto mode share for home-based-work trips

Table 4.2-2: Comparison of Relevant Proposed Plan and Enhanced TDM Alternative Measures and Policies

Proposed Plan TDM Policy	*Enhanced TDM Alternative Policy Augmentation or Addition*	*Additional Trip Reduction, Benefits or Other Effects Assumed for Alternative*
	of charge. The TMA will allocate the transit passes, and monitor and evaluate transit usage. - Employers to provide and maintain shared-use bicycles and/or electric bicycles (including helmets) on-site for use by employees for midday errands at a ratio of 1:16 (bicycles:employees). - Encourage employers to implement Green Commute Programs where employees receive incentives every time they use transit, walk or bicycle to work. Incentives can be tax-exempt cash, coupons for meals, transit passes, or credits towards personal time off, etc. Example: "Santa Clara Valley Transportation Authority and the Greater Denver area Regional Transportation District provide both employee and residential annual Eco Passes at deeply discounted rates, good for all area transit services, on the condition that a pass is purchased for every employee or for every resident within a condo community, apartment building, or neighborhood association (i.e., there is universal enrollment)." (Seattle Urban Mobility Plan, 2008).	

Sources and references for estimating trip reduction effectiveness:

- *Todd Litman (2007), Land Use Impacts On Transport: How Land Use Factors Affect Travel Behavior, VTPI (www.vtpi.org); at www.vtpi.org/landtravel.pdf.*
- *Todd Litman (2008), Recommendations for Improving LEED Transportation and Parking Credits, VTPI (www.vtpi.org); at www.vtpi.org/leed_rec.pdf.*
- *Kimley-Horn and Assoc. (2008) Bay Meadows Traffic Management Plan.*
- *Todd Litman (2006), Parking Management Best Practices, Planners Press (www.planning.org).*
- *Todd Litman (2007), Parking Management: Comprehensive Implementation Guide, VTPI (www.vtpi.org).*
- *James M. Daisa and Terry Parker (2010), "Trip Generation Rates for Urban Infill Uses In*

Table 4.2-2: Comparison of Relevant Proposed Plan and Enhanced TDM Alternative Measures and Policies

Proposed Plan TDM Policy	*Enhanced TDM Alternative Policy Augmentation or Addition*	*Additional Trip Reduction, Benefits or Other Effects Assumed for Alternative*

California," ITE Journal (www.ite.org), Vol. 79, No. 6, June 2010, pp. 30-39.

- *Puget Sound Regional Council (2009). Managing Employee Parking in a Changing Market.*
- *Wilbur Smith Associates, Michael R. Kodama Planning, Richard Willson, KT Analytics and Rick Williams Consulting (2006), Developing Parking Policies to Support Smart Growth in Local Jurisdictions: Best Practices, Metropolitan Transportation Commission (www.mtc.ca.gov).*

THEORETICAL MAXIMUM BUILDOUT ALTERNATIVE

The amount of reasonably foreseeable development and growth associated with adoption of the Lake Merritt Station Area Plan (Plan) was based on a close analysis of available opportunity sites, including the estimated market demand for new development and historic turnover rates in the Lake Merritt Station Area (Station Area). This reasonably foreseeable amount assumes that development and growth will occur on a subset of all parcels that are mostly vacant or underutilized. This EIR uses this increment of reasonably foreseeable growth as the basis for analysis of environmental effects of the project.

Notwithstanding, the Plan's regulations would apply broadly to all parcels within the Planning Area. Theoretically, this could result in every parcel being "built out" consistent with the Plan's regulations.

While the Plan is intended to both encourage and guide new development in the Station Area, the highly developed nature of the Planning Area and its disparate, largely private ownership make it highly unlikely that new development and growth would exceed the "reasonably foreseeable" amount set forth in the Project Description.

Because the Plan's regulations would be applicable to every parcel within the Station Area, the Theoretical Maximum Buildout Alternative evaluates the theoretical possibility that every parcel would be built out to the new maximum level permissible under the suite of changed regulations set forth in the Plan. This would mean that every parcel, including those currently developed, eventually sees construction/expansion such that the parcel is at the maximum density/intensity permitted by the Plan's regulations. In effect, the Theoretical Maximum Buildout Alternative would mean that every single building in the Plan Area not currently built to the maximum allowable level (this is assumed to entail a majority of existing buildings) would either be demolished and replaced with new construction or expanded to the maximum allowable level, and that every parcel (except for those designated as Open Space) would also be developed to the maximum allowable level under proposed Plan Area regulations.

As shown in Table 4.2-1, this would mean a level of residential development (about 35,000 total units) about twelve times greater than what currently exists in the Planning Area, and nearly five times greater than the proposed Plan, along with substantial increases in the intensity of commercial development. Given that the majority of land within the Planning Area is currently developed below the density/intensity permitted by the Plan's regulations, with a wide variety of existing uses that are likely to remain well into the future, the likelihood of "maximum buildout" occurring is considered so highly unlikely as to be theoretical.

Because the Theoretical Maximum Buildout Alternative would allow an increment of growth substantially greater than the project, the Alternative can be assumed to result in significantly more intense environmental effects for every environmental topic considered. All of the project's significant and unavoidable impacts would be substantially increased in intensity by the Theoretical Maximum Buildout Alternative. Moreover, as described in Section 4.3, the Theoretical Maximum Buildout Alternative would be likely to create significant impacts in numerous environmental topic areas where the project would result in less-than-significant impacts.

4.3 Comparative Impact Analysis

This section compares the environmental impacts of each alternative to the proposed Plan. Alternatives are compared using the same impact significance thresholds as used for the proposed Plan. In general, each potential impact covered in Chapter 3 is evaluated here briefly for each alternative.

Throughout this section a description of each alternative is followed by a discussion of impacts and how those impacts compare to those of the proposed Plan. As permitted by CEQA Guidelines Section 15126.6[d], the effects of the alternatives are discussed in less detail than those of the proposed Plan. Notwithstanding, the alternatives analysis provides an adequate level of detail for the public, public agencies, and city decision-makers to evaluate the alternatives.

Table 4.4-1 lists all impacts associated with the proposed Plan relative to City of Oakland CEQA thresholds. The table notes whether the project would result in significant and unavoidable (SU) impacts, impacts that are less than significant with mitigation (LSM), impacts that are less than significant, no mitigation required (LTS), or no impact (NI). For each impact or threshold, the table provides comparative impacts for each alternative.

This section describes the impacts of each alternative compared to those identified for the proposed Plan in terms of whether the alternative: 1) avoids the project impact; 2) is the same as the project impact; 3) is substantially greater than the project impact; or 4) is substantially less than the project impact.

ACTC DEFINED NO PROJECT ALTERNATIVE

The ACTC Defined No Project Alternative assumes continuation of the current General Plan and zoning regulations and none of the policies in the proposed Plan, with growth projections consistent with ACTC growth projections. The ACTC Defined No Project Alternative would result in virtually the same overall population and job growth as the proposed Plan, with approximately 200 fewer persons and just under 100 jobs more than the proposed Plan. This alternative would also include less retail and office development, and more institutional development than the proposed Plan. Environmental impacts of the ACTC Defined No Project Alternative and how those impacts compare to the proposed Plan are described in the following sections.

Land Use, Planning, Population and Housing

Physical Division of an Established Community

Neither the proposed Plan nor the ACTC Defined No Project Alternative proposes development that would physically divide any established communities. The proposed Plan, however, includes additional streetscape improvements intended to foster connectivity and mitigate the divisive effects of Interstate

880 (I-880) and other less well-integrated features of the neighborhood. The ACTC Defined No Project Alternative, in contrast, does not include these same improvements. Nevertheless, this alternative results in a less than significant impact, the same as the proposed Plan.

Fundamental Land Use Conflicts

Neither the proposed Plan nor the ACTC Defined No Project Alternative is expected to have a significant impact on existing land uses in the Planning Area. However, of the two, the ACTC Defined No Project Alternative would have a greater potential impact. This is because the existing regulations assumed under the ACTC Defined No Project Alternative allow for taller buildings not subject to the district-specific design guidelines proposed by the Station Area Plan. For example, in the blocks near Madison Square Park and in the 7th Street/Harrison Square Residential District, zoning regulations currently allow buildings with bases of up to 85 feet and towers of up to 275 feet. The proposed Plan would reduce maximum base and/or tower heights in these areas. Without such regulations, development under the ACTC Defined No Project Alternative is less likely to be sensitive to site contexts in scale or form, and thus more likely to conflict with surrounding land uses. However, because development projects under this alternative would still be subject to design review, it can be considered to have a less than significant overall impact, the same as the proposed Plan.

Conflicts with Applicable Plans and Regulations

The ACTC Defined No Project Alternative would not conflict with existing zoning regulations, since no changes are included. However, it would be less effective than the proposed Plan in helping the City to meet its General Plan goals. This is because the proposed Plan also includes land use and zoning amendments intended to address issues such as historic preservation and neighborhood compatibility. Nevertheless, both the ACTC Defined No Project Alternative and the proposed Plan would have less than significant impacts related to conflicts with applicable plans and regulations.

Displacement of Housing or People

The ACTC Defined No Project Alternative would result in virtually the same amount of development as the proposed plan, which is projected to produce up to 4,900 additional housing units in the Planning Area by 2035. Because this number is higher than the number of units anticipated to be lost with new development, and because the City's Ellis Act Ordinance entitles low-income households to relocation assistance should landlords remove their properties from the rental market, the potential impact on households displaced by new development by either the proposed Plan or the alternative is less than significant. Under the ACTC Defined No Project Alternative, the location of future development is less precisely understood than under the proposed Plan. Both new housing and new jobs would be concentrated more in the north and west sections of the Planning Area, which currently have the least amount of housing. Therefore, it is possible that housing impacted under the proposed Plan might be less likely to be affected under the ACTC Defined No Project Alternative. This impact is less than significant, the same as the proposed Plan.

Inducement of Population Growth

The ACTC Defined No Project Alternative would involve nearly the same amount of housing and job growth as the proposed Plan. Neither is expected to directly or indirectly induce population growth in a manner not contemplated in the General Plan. The absence of the proposed Plan's new district-specific

policies is not expected to cause any change in the Planning Area's potential to induce growth elsewhere. Thus, this alternative's impact would be less than significant, the same as the proposed Plan.

Transportation (Comparative Trip Generation Analysis)

The potential for an alternative to result in fewer traffic impacts[1] than the proposed Plan is measured in terms of Level of Service (LOS) at intersections, and roadway and highway segments, based on the City's CEQA thresholds. Performance measures of LOS vary by facility type but regardless of the type of facility, the LOS is based on peak hour traffic volumes and, consistently across all measures of LOS, as the volume increases the LOS degrades. Therefore, in this less detailed assessment of the potential impacts of the alternatives, PM peak hour traffic volume is a proxy for LOS. The PM peak hour traffic volume generated by the alternative is used because this period (an hour between 4:00 PM and 7:00 PM) is typically the highest hour of traffic throughout the day and represents the period of greatest potential impact. The transportation assessment identifies potential impacts of the alternatives using a comparison of the PM peak hour trip generation of the alternatives relative to that of the proposed Plan whose impacts are known.

The ACTC Defined No Project Alternative serves as the basis for determining the significance of impacts of the proposed Plan in Section 3.2 and, therefore, is analyzed in the same level of detail as the proposed Plan, and its impacts compared to the proposed Plan are known. The trip generation of the ACTC Defined No Project Alternative is included in the less detailed assessment below for comprehensiveness.

This alternative would result in a comparable amount of development as compared to the proposed Plan. It is subject to the same trip reductions for internal capture, transit, walking, and bicycling, and retail pass-by as the proposed Plan. The difference in land use that causes the greatest change from a transportation perspective is the shift from institutional employment in this alternative to retail employment in the proposed Plan. On a per square foot basis, retail land use is the highest vehicular trip generator of all of the common urban land uses. Despite this fact, a certain amount of retail is essential in any mixed-use district because it fills the day-to-day needs of nearby residents and employees who would otherwise use an automobile and drive relatively long distances to purchase goods and services. Further, retail is more effective in capturing trips internally and promoting walking and bicycling when it is provided in the form of smaller stores widely distributed throughout the Planning Area (as the proposed Plan does) as opposed to one or two large concentrations of retail in the form of shopping centers or malls. Since this alternative includes less retail and less office, it would result in an 11 percent reduction in the PM peak hour trip generation as compared to the proposed Plan. Regardless, the reduction in traffic achieved by implementing the ACTC Defined No Project Alternative would not eliminate significant and unavoidable impacts on freeway facilities as identified in Section 3.2 for the proposed Plan. Therefore, this alternative would result in impacts that are the same as the Project impacts.

Table 4.3-1 compares the net change in land use between existing conditions and buildout (year 2035) of each alternative as well as the estimated PM peak hour trips generated by the increment of change in the land use. The trip generation estimates include adjustments for internal capture, mode share, and pass-by capture for retail uses.

[1] There are other types of transportation-related impacts specified in the City's CEQA thresholds but only traffic impacts are discussed in this alternatives assessment. This is primarily because the impacts of the proposed Plan identified as significant in Section 3.2 are all traffic related.All impacts are compared in Section 4.4: Environmentally Superior Alternative.

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Table 4.3-1: Comparison of Potential New Development and Peak Hour Traffic by Alternative (2035)

Land Use	*Existing Conditions*		*Year 2035 PM Peak Hour Traffic Generation of Net New Development*											
			ACTC No Project		*Trends-Based No Project*		*Proposed Plan*		*Reduced Scope Alternative*		*Enhanced TDM Alternative*		*Theoretical Maximum Buildout Alternative*	
	Amount	*PM Peak Hour Trips*	*Growth in Land Use (2035 - Ex)*	*PM Peak Hour Trips*	*Growth in Land Use (2035 - Ex)*	*PM Peak Hour Trips*	*Growth in Land Use (2035 - Ex)*	*PM Peak Hour Trips*[8]	*Growth in Land Use (2035 - Ex)*	*PM Peak Hour Trips*	*Growth in Land Use (2035 - Ex)*	*PM Peak Hour Trips*	*Growth in Land Use (2035 - Ex)*	*PM Peak Hour Trips*
Residential Units[1]	3,000	484	4,900	790	2,300	369	4,900	790	3,900	629	4,900	729	32,600	
Retail Square Feet[2]	843,000	1,159	161,000	221	70,500	97	404,000	556	283,000	389	404,000	556	7,596,000	
Office Square Feet[2]	1,022,000	1,020	1,134,000	963	540,000	459	1,229,000	1,044	979,000	831	1,229,000	1,007	23,109,000	
Institutional Square Feet[3]	3,467,000	2,391	316,000	218	300,000	207	108,000	74	108,000	74	108,000	74	2,031,000	
Jobs[4, 5]	17,800		4,200		1,600		4,100		4,100		4,100		81,500	
Net Change in PM Peak Hour Trips[6]		**5,054**		**2,192**		**1,132**		**2,464**		**1,923**		**2,366**		**12,320**
Percent Change in Traffic Compared to Proposed Plan[7]				**-11%**		**-54%**		**0%**		**-22%**		**-4%**		**80%**

Notes:

1. Existing residential units is based on ACTC/ABAG projections for 2005, plus projects completed between 2005 and 2012.
2. Existing non-residential square feet are estimated based on existing building footprint square footage, multiplied by the number of stories.
3. Existing institutional uses are comprised of various public and community facilities including Laney College, grade schools, school district facilities, convention center facilities, and public agency offices. Trip generation estimates for Institutional land use is based on rates for Government Office Building (LUC 730, Institute of Transportation Engineers).
4. Existing jobs are based on ACTC/ABAG projections for 2005.
5. Conversion between jobs and floor area are based on one job for every 350 SF of retail space, one job for every 400 square feet of office space, and one job for every 1,000 square feet of institutional.
6. PM peak hour trips are based on the following formulae: Trips = [[(Variable*TripRate)*{(1-%IntCap)]*(1-%NonAutoMode)}*(1-%RetByPass)], where:
-Variable = independent variable (e.g. square feet or units); -TripRate = PM peak hour trip generation per independent variable from ITE Trip Generation (8th Edition); %IntCap = the average internalization of trips within the planning area; %NonAutoMode = the share of trips made by transit, bicycling and walking; %RetByPass = the percent of retail vehicle trips that are captured from existing traffic and not counted as new trips.
7. The percent change in traffic compares the alternatives to the Proposed Plan.
8. The Proposed Plan's PM peak hour trips reported in this table don't precisely match the Plan's estimated trips in the transportation impacts section of the this EIR because this table applies an average internal capture rate for the entire Plan area, while the transportation section applies internal capture to each individual opportunity site.

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Air Quality

Clean Air Plan Consistency – Control Measures

Whereas the proposed Plan includes policies that support the implementation of relevant transportation control measures (TCMs) and land use and local impact measures (LUMs) contained in the Bay Area 2010 Clean Air Plan, the ACTC Defined No Project Alternative does not include these same policies. Therefore, this alternative would result in a potentially significant impact regarding the implementation of Clean Air Plan control measures, while the proposed Plan would not. However, existing Oakland General Plan policies and Standard Conditions of Approval (SCAs) would likely reduce this impact to less than significant.

Clean Air Plan Consistency – Vehicle Trip Growth Compared to Population Growth

The ACTC Defined No Project Alternative would result in a 43 percent increase in PM peak hour vehicle trips and a 162 percent increase in population compared to existing conditions. The proposed Plan would result in a 49 percent increase in PM peak hour vehicle trips and a 162 percent increase in population compared to existing conditions. In both cases, population growth is expected to exceed vehicle trip growth, resulting in a less than significant impact. When compared with the proposed Plan and the other alternatives, this alternative has the largest margin of difference.

Toxic Air Contaminants

For an alternative to be less than significant in this category, it must not expose persons, by siting a new source or a new sensitive receptor, to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 or greater than 0.3 micrograms per cubic meter. Analysis of this impact considers potential exposure of residents to sources of TACs as well as implementation of policies and inclusion of mapping that address toxic air contaminants and overlay zones surrounding the I-880 Freeway.

While the proposed Plan includes mapping complementing City SCAs that indicates a less than significant impact at the Plan-level, the ACTC Defined No Project Alternative would not involve the adoption of a new Plan, or any action such as mapping. Therefore, the ACTC Defined No Project Alternative would remain potentially significant at the Plan-level of analysis. The overall impact of potential exposure to gaseous TACs is significant and unavoidable under both the proposed Plan and the ACTC Defined No Project Alternative. While City of Oakland SCAs B and C will reduce impacts associated with particulate matter and reduce impacts related to gaseous TACs to the extent feasible, there are no known feasible technologies or site planning considerations that have been shown to reduce risks of gaseous TACs.

Odors

Both the proposed Plan and the ACTC Defined No Project Alternative would result in a significant and unavoidable impact regarding odors. As with the other alternatives, this alternative would add new sensitive receptors within the Planning Area. Numerous odor sources already exist in and around the Planning Area, such that the entire Planning Area is potentially subject to odors today. The only available mitigation measure for reducing the potential impact would be to increase the distance between sources and sensitive receptors. Because this would require moving existing sensitive receptors and/or odor sources, this measure is not feasible.

Greenhouse Gases

Total and Per Service Population Emissions

Each alternative was run through the CalEEMod model, making adjustments to land use assumptions and policy modifications as appropriate. Model outputs for the alternatives are shown in **Table 4.3-2**. The ACTC Defined No Project Alternative would result in a similar amount of new development as the proposed Plan, but without some of the proposed Plan's transit-oriented and multi-modal policies. Therefore, inputs to the CalEEMod for this alternative do not include modifications tied to pedestrian and transit improvements included in the proposed Plan. The CalEEMod outputs predict 3.31 metric tons of CO_2e emissions per service population per year for this alternative in the modified scenario, which is slightly higher than the proposed Plan output of 3.05 $MTCO_2e$ per service population per year. Both are below the threshold of 4.6 $MTCO_2e$ per service population per year, meaning that both the proposed Plan and this alternative would have a less than significant impact. However, though both may be considered less than significant, the alternative will produce slightly higher overall and per service population emissions impacts than the proposed Plan.

Table 4.3-2: Comparative Greenhouse Gas Emissions as a Result of Development under Each Alternative, Based on CalEEMod Outputs

	Total Unmitigated MTCO2e Emissions	*Total Mitigated MTCO2e Emissions*	*Service Population*	*Unmitigated MTCO2e per Service Population*	*Mitigated MTCO2e per Service Population*
Proposed Plan	59,003	42,666	14,000	4.21	3.05
Reduced Scope	46,206	33,432	11,000	4.20	3.04
Enhanced TDM	59,003	42,489	14,000	4.21	3.03
ACTC Defined No Project	56,571	46,697	14,100	4.01	3.31
Trends-Based No Project	30,074	23,684	6,200	4.85	3.82
Theoretical Maximum Buildout	792,261	570,428	174,500	4.54	3.26

Note:

1. Emissions estimates include annualized construction emissions (over 40 years) and annual operational emissions. No construction mitigation is assumed.

Source: Dyett & Bhatia, 2012; CalEEMod, 2012.

Plan Consistency

Both the ACTC Defined No Project Alternative and the proposed Plan would meet per service population emissions thresholds (as described above) and be subject to City policies and SCAs, ensuring that development is consistent with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions, resulting in a less than significant impact for both the proposed Plan and this alternative.

Parks and Recreation

Substantial Physical Deterioration

Though both the proposed Plan and this alternative would increase population by the same amount, only the proposed Plan includes additional open space to address anticipated population growth. The proposed plan also details policies for open space improvements and access improvements that would make both regional and neighborhood parks more accessible to the community. Given projected population growth, this alternative would cause the area's overall park land ratio to fall from 3.9 to 1.8 acres per 1,000 residents (compared to 2.0 under the proposed plan), and its ratio of neighborhood-serving park land would decline from 0.7 to 0.3 acres per 1,000 (compared to 0.3 under the proposed Plan). **Table 4.3-3** summarizes park acreage and ratios for each alternative. However, as a result of existing policies and planned park improvements, the impact of this alternative is less than significant, the same as the proposed Plan. While both are considered less than significant, this alternative has a greater impact than the proposed Plan.

Table 4.3-3: Summary of Park Acreage and Parks Ratio

Type	*Existing*	*Station Area Plan Buildout*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project Alternative*	*Trends-Based No Project Alternative*	*Theoretical Maximum Buildout Alternative*
Total Park Acreage in Planning Area	23.6	32.2	32.2	32.2	28.3	28.3	28.3
Local-Serving Park Acreage in Planning Area[1]	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Population in Planning Area	6,090	15,990	13,890	15,990	15,990	10,690	93,000
Overall Park Ratio (Acres per 1,000 Residents)	3.9	2.0	2.3	2.0	1.8	2.6	0.30
Local-Serving Park Ratio (Acres per 1,000 Residents)	0.7	0.3	0.3	0.3	0.3	0.4	0.04

Note:

1. Local-serving park acreage includes" all parks which meet the active recreational needs of the community," based on the Oakland General Plan. For this analysis, only Neighborhood and Special Use Parks are included.

Source: Dyett & Bhatia, 2012.

Construction or Expansion of Recreational Facilities

The ACTC Defined No Project Alternative would create less new park land than the proposed Plan. New parks would be located on already developed land. This potential impact is less than significant for both the proposed Plan and the ACTC Defined No Project Alternative.

Public Services

Fire Services

The Planning Area is well-served by the Oakland Fire Department (OFD); allocation of fire services would be based on citywide development trends, and would follow existing City of Oakland General Plan policies for ensuring fire service provision. All new development is required to adhere to State and City codes, as well as SCAs concerning fire safety.

In particular, the ACTC Defined No Project Alternative would result in virtually the same amount of new development as would the proposed Plan. Projected growth for this alternative is 4,700 households and 4,200 jobs, 100 more jobs than the proposed Plan. While the location of new development under this alternative is expected to differ from the proposed Plan, it is still expected to take place within the well-served Planning Area. Meanwhile, citywide planning will determine where new fire service investments are most needed. Overall, the proposed Plan and the ACTC Defined No Project would both result in a less than significant impact.

Police Services

Population growth in the Planning Area would decrease the Police Department's service ratio of officers per 1,000 people unless the growth is accompanied by additional staffing. As with fire services, police services would be allocated according to citywide needs. Development under the ACTC Defined No Project Alternative would be similar to the proposed Plan's eight percent of projected household growth in Oakland by 2035, though this alternative would result in about 100 additional jobs. This means that the Planning Area's share of the overall need for additional police services is relatively small for both alternatives. Increased demand for services and funding for those services is expected to be the same for both alternatives. Neither the proposed Plan or this alternative is expected to have a significant impact on police services. The ACTC Defined No Project Alternative would, however, be slightly less effective than the proposed Plan in minimizing potential impacts of new development on police services. This is because the proposed Plan includes recommendations to expand the Ambassador program, and safety-oriented design guidelines for public space improvements and new building design, while this alternative does not.

Schools and Other Community Facilities

Six Oakland Unified School District (OUSD) schools serve Planning Area students, and there are four charter schools located in the Planning Area. These schools have the estimated available capacity for 419 additional elementary students and 546 additional middle school students. There is an existing capacity shortage for 124 high school students.

The ACTC Defined No Project Alternative would result in virtually the same amount of new housing units, population growth, and new students as under the proposed Plan (336-931 new students), as shown in **Table 4.3-4**. OUSD citywide facilities are estimated to have the capacity to support 43,520 to 69,630 students. If development under the proposed Plan or ACTC Defined No Project Alternative generates more students than local schools can accommodate, these students should be able to find a place in schools outside the Planning Area. More local students may also be absorbed at Planning Area schools if they use the Open Enrollment priority system to enroll in the local schools. Meanwhile, the Planning Area is well-served by libraries.

Given the above factors, the ACTC Defined No Project Alternative would result in a less than significant impact, the same as the proposed Plan.

Table 4.3-4: Estimated New Students in the Planning Area, Proposed Plan and Reduced Scope Alternative

	Estimated Student Generation Rate Forecasts											
	Proposed Plan[1]			***Reduced Scope***			***Trends-Based No Project***			***Theoretical Maximum Buildout***		
	Low	*Med*	*High*	*Low*	*Med*	*High*	*Low*	*Med*	*High*	*Low*	*Med*	*High*
Units												
New market-rate units	4,165	4,165	4,165	3,315	3,315	3,315	1,955	1,955	1,955	27,740	27,740	27,740
New below market-rate units (15% of total)	735	735	735	585	585	585	345	345	345	4,890	4,890	4,890
New units total	**4,900**	**4,900**	**4,900**	**3,900**	**3,900**	**3,900**	**2,300**	**2,300**	**2,300**	**32,600**	**32,600**	**32,600**
Students												
Estimated Overall Student Generation Rate[2]	0.07	0.09	0.19	0.07	0.09	0.19	0.07	0.09	0.19	0.07	0.09	0.19
New K to 5 Students (60% of total)[3]	201	251	559	160	200	445	95	118	262	1,371	1,762	3,720
New 6 to 8 Students (20% of total)[3]	67	84	186	53	67	148	32	39	87	457	587	1,240
New 9 to 12 Students (20% of total)[3]	67	84	186	53	67	148	32	39	87	457	587	1,240
New students total	**336**	**419**	**931**	**267**	**333**	**741**	**158**	**197**	**437**	**2,284**	**2,937**	**6,200**

Notes:

1. Enhanced TDM and ACTC Defined No Project Alternatives would be the same as the Proposed Plan with regard to student generation.
2. Represents an average of projected rates for market-rate and below-market rate units from 2006 Lapkoff & Gobalet Demographic Research, Inc. study. See Table 3.6-5.
3. Grade distribution based on 2006 Lapkoff & Gobalet study.

Sources: Lapkoff & Gobalet Demographic Research, Inc., 2006; Dyett & Bhatia, 2012.

Utilities and Service Systems

The Planning Area is urbanized, and is supported by utilities and service system. Both the proposed Plan and the ACTC Defined No Project Alternative assume additional population growth, and thus additional demand on utilities. Both have the same amount of projected development.

Wastewater Treatment Requirements and Facilities

The ACTC Defined No Project Alternative would have the same amount of development and demand on wastewater treatment systems as the proposed Plan, and both would result in a less than significant impact.

Stormwater Drainage Facilities

Since the entire planning area is supported by an existing stormwater drainage system, the variations in the location of development between the ACTC Defined No Project Alternative would not be expected to effect the ability of the current system to accommodate the same amount of growth. Impacts from the ACTC Defined No Project Alternative are therefore less than significant, the same as the proposed Plan.

Water Supply

Because potential new development, and thus additional demand for water, are equivalent between the ACTC Defined No Project Alternative and the proposed Plan, potential impacts on the demand for water supply would be the same. The impact is considered less than significant for the ACTC Defined No Project Alternative and the proposed Plan.

Landfills and State Waste Diversion Requirements

As described in Section 3.7, landfills serving the City of Oakland together have substantial capacity through the planning horizon. Therefore, it is expected that new development under the ACTC Defined No Project Alternative would be served by a landfill with sufficient permitted capacity to accommodate future solid waste disposal needs. It would not require or result in construction of landfill facilities or expansion of existing facilities, and could thus avoid the significant environmental effects associated with those activities.

Further, the ACTC Defined No Project Alternative would not impede the ability of the City to meet the waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. All new development projects would be subject to SCA 36, *Waste Reduction and Recycling*, which requires the preparation of an Operational Diversion Plan to identify how projects would comply with the City's Recycling Space Allocation Ordinance (Chapter 17.118 OMC). Therefore, the ACTC Defined No Project Alternative, as with the proposed Plan, would have a less than significant impact on solid waste services and landfill capacity.

Energy Standards and Provision

Development under all of the alternatives would be subject to both Title 24 of the California Code of Regulations and CALGreen, which set standards for energy conservation. Title 24 requires construction projects to incorporate energy-conserving design measures. Further, under CALGreen, a green building is expected to achieve, at minimum, a further 15 percent reduction in energy usage relative to Title 24

standards. Given this regulatory context, impact from this alternative on energy standards would be less than significant for both the ACTC Defined No Project Alternative and the proposed Plan.

Cultural and Historic Resources

Historic Resources

The Planning Area contains 187 properties that meet the City of Oakland's thresholds of significance for historic resources. The ACTC Defined No Project Alternative would result in virtually the same amount of new residential and commercial development as under the proposed Plan. Specific opportunity sites have not been identified for this alternative, though growth under this alternative is expected to concentrate more on the north and west sides of the Planning Area. Existing SCAs and regulations protecting historical resources would mitigate any potential impact of *overall* redevelopment in the Planning Area, but will not be able to reduce the potential impact of demolition of OUSD or County property to a level that is less than significant. Further, this alternative wouldn't include proposed Plan policies related to historic resources or Mitigation Measure C-1. The potential impact on historic resources is therefore significant and unavoidable for both the ACTC Defined No Project Alternative and the proposed Plan.

Archaeological Resources

The Planning Area includes six recorded archaeological resources and is considered to have a high potential for additional unrecorded Native American resources. Thus, additional discoveries of archeological or Native American resources may be likely. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCAs, make these potential impacts less than significant for the proposed Plan and this alternative.

Human Remains

There is potential for construction activities from new development under the proposed Plan to impact human remains in the Planning Area. If human remains of Native American origin are discovered during project construction, the developer and/or City staff would be required to comply with State laws relating to the disposition of Native American burials, as well as follow the City of Oakland's SCA 53, *Human Remains,* making this potential impact less than significant for the proposed Plan and this alternative.

Paleontological Resources

The geological units underlying the Planning Area are considered to have a low to moderate paleontological sensitivity. It is possible that fossils could be discovered during excavation facilitated by development under the ACTC No Project Alternative, the same as under the proposed Plan. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCA, make these potential impacts less than significant for the proposed Plan and this alternative.

Aesthetics

Scenic Vistas

The Planning Area contains notable scenic vistas along Lake Merritt and the Lake Merritt Channel, over Lake Merritt toward the downtown skyline and the Oakland Hills, and toward historic structures such as the Kaiser Auditorium. Specific opportunity sites have not been identified for the ACTC Defined No Project Alternative, but development is expected to be more concentrated in the western and northern

edges of the Planning Area. This may mean that there would be less intensive development in highly visible locations facing park land along Lake Merritt and the Channel.

The General Plan and Estuary Policy Plan include policies applicable to all new development that would protect views. For example, the existing 85-foot height limit that applies to much of the 14th Street Corridor would limit height of a potential building on Site 6 adjacent to the Main Post Office and Oakland Hotel. The ACTC Defined No Project Alternative may be less likely than the proposed Plan to impact scenic portions of the Planning Area with new development, though overall, the impact for both the ACTC Defined No Project Alternative and the proposed Plan is less than significant.

Visual Character and Quality

Parts of the Planning Area have distinctive visual character and qualities—particularly the Chinatown Commercial District and the 7th Street/Harrison Square Residential District—as well as other areas significant for their historical value. The overall amount of new development under the ACTC defined No Project Alternative would be roughly the same as that of the proposed Plan, though it would be expected to concentrate more on the northern and western edges of the Planning Area. Sites 8, 9 and 15 would likely experience high-density development, but that development would have little negative visual impact. This is because the area—north of the Chinatown Commercial Center and just outside of the Downtown District—does not have a strong visual identity. High density development at Site 31 and other sites adjacent to the 7th Street/Harrison Square Residential District may result in greater impacts. The ACTC Defined No Project Alternative would lack the Station Area Plan's proposed design guidelines to improve overall visual quality. This means that the ACTC Defined No Project Alternative would be less successful than the proposed Plan in maintaining visual quality. However, as long as development adheres to existing General Plan policies and regulations, the potential impact would be less than significant for this alternative, the same as the proposed Plan.

Light and Glare

As with the proposed Plan, the ACTC No Project Alternative has the potential to add light and glare within the Planning Area. However, this impact is less than significant given that the character of the Planning Area is already urbanized. The proposed Plan would be slightly more effective at addressing this impact, due to its proposed design guidelines regarding lighting and new development. Even so, as long as new development adheres to existing regulations, the impact resulting from either the ACTC No Project Alternative or the proposed Plan would be less than significant.

Shadows on Public or Quasi-Public Spaces

The ACTC Defined No Project Alternative assumes current zoning regulations and does not include the same set of regulatory height areas included in the proposed Plan. Without these proposed height areas, the ACTC Defined No Project Alternative would allow buildings taller than those allowed under the proposed Plan in many parts of the Planning Area, including sites that are adjacent to public parks. For example, the ACTC Defined No Project would allow taller buildings adjacent to the north and east sides of Chinese Garden Park and the west side of Lincoln Square Park. Nevertheless, with implementation of existing design review procedures, the potential for new development to cast shadows that substantially impair the beneficial use of public open spaces is less than significant for the Trends-Based No Project, the same as the proposed Plan.

Exception to Existing Policies or Regulations

The ACTC Defined No Project Alternative represents the continuation of existing regulations and thus would not conflict with them, resulting in a less than significant impact. The proposed Plan would also have a less than significant impact.

Noise

Construction Noise

Construction could expose residential uses to noise that would exceed General Plan standard of 80 and 85 dBA for short-term construction noise at receiving residential uses and commercial or industrial uses, respectively, for some distance around construction sites. The ACTC Defined No Project Alternative would not differ from the proposed Plan with regard to construction noise impacts, as the same amount of development and the same existing standards would apply. Existing City of Oakland SCA would apply to all alternatives, limiting construction hours, requiring a noise reduction program including the use of best available control techniques on machinery, requiring that stationary noise sources are located as far from adjacent receptors as possible, and providing strict requirements for the use of impact tools such as jack hammers. Adherence to these requirements reduces this potential impact to a level that is less than significant for the proposed Plan and this alternative.

Operational Noise

The ACTC Defined No Project Alternative would be equivalent to the proposed Plan in terms of potential operational noise impacts. Neither alternative is expected to result in new land uses that would generate substantial noise, such as automotive or industrial uses, and in some cases may result in the replacement of such uses. New buildings would result in noise from mechanical equipment, but this equipment would be standardized for noise reduction and is not expected to exceed Noise Ordinance thresholds. In addition, enforcement of the City's SCA 32, Operational Noise, would reduce any future operational noise impact to less than significant for the proposed Plan and this alternative.

Increase in Ambient Noise

The ACTC Defined No Project Alternative is projected to result in the same amount of growth and traffic as the proposed Plan. Thus, new development under this alternative is expected to generate less than 5 dBA or greater increases in the community noise level on all Planning Area roadway segments, making the impact less than significant for the proposed Plan and this alternative.

Interior Noise

The ACTC Defined No Project Alternative does not differ from the proposed Plan in its impacts on interior noise. To achieve California Noise Insulation Standards, many new buildings with residential uses will need to achieve substantial noise reduction from exterior noise levels. The City's SCA 31 mandates incorporation of noise reduction measures into project design to achieve an acceptable interior noise level for residential uses. With enforcement of existing City SCA's, potential impacts related to interior noise are reduced to less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Community Noise Environment

The ACTC Defined No Project Alternative is projected to result in a community noise environment that exceeds General Plan land use compatibility guidelines to a degree similar to that of the proposed Plan. However, the community noise environment in much of the Planning Area already exceeds these standards. The City of Oakland's General Plan and Noise Ordinance provide a strong policy framework for minimizing noise impacts. The Noise Element's Action 3.1 requires that new multi-unit buildings meet State insulation standards regulating the maximum allowable interior noise level. The City's SCA 31 requires that noise reduction in the form of sound-rated assemblies (windows, exterior doors, and walls) and/or other measures be incorporated into project designs. Other SCAs described in the Regulatory Setting section of Chapter 3.10 ensure that noise and vibration from construction and operations are minimized. Implementation of these policies, standards, and conditions of approval would ensure that the noise environment in the Planning Area does not increase in a manner that worsens existing land use compatibility or exposes noise-sensitive land uses to "unacceptable" noise levels. This will be true in the 2035 buildout year and at any time during the planning period. Any potential noise impacts resulting from this alternative or the proposed Plan would thus be reduced to a less than significant level.

Workplace Noise

Neither the ACTC Defined No Project Alternative nor the proposed Plan is expected to result in new permanent land uses involving noise-generating activities that would significantly impact interior operational noise levels in workplaces. However, construction activities could potentially expose workers to excessive noise exposure. By enforcing existing City SCAs and federal, State, and local regulations including Cal-OSHA standards, potential impacts related to occupational noise would be reduced to less than significant for the ACTC Defined No Project Alternative, the same as the proposed Plan.

Groundborne Vibration

The only permanent source of vibration in the Planning Area is the Union Pacific/Amtrak rail line along the southern edge of a portion of the Planning Area near the Lake Merritt Channel. Currently, this land is occupied by light industrial and parking uses. If development of vibration-sensitive use does occur here, SCA 38 would require acoustical analysis and vibration reduction strategies as needed. Construction-related groundborne vibration would be temporary in nature and related noise impacts would be short-term. With adherence to SCA 38, limiting construction hours, and SCA 39, requiring site-specific noise attenuation measures for all projects involving pile driving or other extreme noise generation, this potential impact would be less than significant for the proposed Plan and this alternative.

Biological Resources

Special Status Species

The proposed Plan and all of the alternatives, including the ACTC Defined No Project Alternative, would be subject to all existing regulations that protect special status species. These include SCA 44, which limits the impact of tree removal on nesting birds, and other SCAs that ensure Low Impact Development (LID) that will improve water quality in Lake Merritt over the long term. There have been 12 special status species identified as having moderate or high potential to occur, or are known to occur, in or adjacent to the Planning Area, with another nine considered to have a low potential to occur. The ACTC Defined No Project Alternative would lack the proposed Plan's policies to extend Channel park land and establish a clear development setback, making it less effective than the proposed Plan in protecting

special status species. However, given proper adherence to existing regulations, impacts would be less than significant for the proposed Plan and this alternative.

Riparian Habitat

Though no riparian habitat or sensitive natural community currently exists in the Planning Area, planned improvements along Lake Merritt Channel will add new vegetation and potentially create riparian habitat. The ACTC Defined No Project Alternative would include these planned improvements, but it would not include the same proposal for future park development along the Channel that exists in the proposed Plan. Therefore, it may have a slightly less beneficial impact than the proposed Plan. Nevertheless, given adherence to existing City of Oakland SCAs that ensure that riparian corridors are protected as new development takes place, the impact on riparian habitat for this this alternative and the proposed Plan would be less than significant.

Wetlands

Currently, only a small section of Lake Merritt Channel and its banks is classified as a wetland eligible for federal protection. Measure DD improvements include restoration in this area that would create additional areas of open water and marsh, potentially creating additional wetlands. Any project in the Planning Area that would impact these wetlands would be subject to Clean Water Act provisions. Thus, potential impacts would be less than significant for the proposed Plan and all of the alternatives, including the ACTC Defined No Project Alternative.

Wildlife Movement and Wildlife Nursery Sites

Several migratory bird species have been observed using the Lake Merritt Channel corridor, and migratory fish may also use the Channel. In the short term, construction impacts that could potentially disturb native or migratory animals will be less than significant given compliance with all Clean Water Act regulations and City of Oakland SCAs.

Increased recreational use of this corridor by boaters could potentially impact the use of the Channel by water birds. To minimize this potential impact to a less than significant level, both the ACTC Defined No Project Alternative and the proposed Plan would restrict small-boat use of Lake Merritt Channel to the non-wintering period of April to September, consistent with Measure DD Mitigation Measures. While the ACTC Defined No Project Alternative would have a less than significant impact, the same as the proposed Plan, it does not involve the future extension of park land along Lake Merritt Channel proposed in the Station Area Plan. Therefore, its impact may be slightly greater than that of the proposed Plan.

Development under both the ACTC Defined No Project Alternative and the proposed Plan is expected to include new tall buildings and lighting, potentially resulting in additional impacts on migrating birds. The ACTC Defined No Project Alternative assumes existing zoning regulations, which do not include the new base and building height limits and upper story setback requirements proposed in the Station Area Plan. Therefore, this alternative would allow taller and bulkier buildings in several sections of the Planning Area than would be allowed under the proposed Plan. While adherence to existing regulations, particularly SCA D, would ensure that the potential impact is less than significant for this alternative, it may result in a greater impact than that of the proposed Plan.

Both the ACTC Defined No Project Alternative and the proposed Plan include Measure DD-funded improvements, which will result in extensive changes to existing vegetation and are relevant to nesting

habitat for bird species in the Planning Area. These improvements have undergone environmental review and will comply with all SCAs relating to tree removal and protection, including SCA 44 (Tree Removal during Breeding Season). Adherence to these regulations would reduce potential impact of new development in the Planning Area on suitable nesting habitat to less than significant levels for both the proposed Plan and this alternative.

Tree Protection Ordinance

The design of the Measure DD implementation project, occurring along Lake Merritt and the Channel, was significantly shaped by the need to adhere to the City's Tree Protection Ordinance. Elsewhere in the Planning Area, new development activities are expected to occur on parcels with very few trees. As under the proposed Plan, development under the ACTC Defined No Project Alternative would adhere to the Tree Protection Ordinance, making this impact less than significant for both.

Creek Protection Ordinance

All properties in the Planning Area are subject to the Creek Protection Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater. Development along Lake Merritt Channel requires a Creek Protection Permit. Nearly all of this land is public park land and much of it is subject to Measure DD-funded improvements, which follow all Ordinance requirements. There is a small amount of land designated for urban uses abutting the Channel, where any development would be subject to all relevant Ordinance requirements. None of the alternatives would differ from the proposed Plan in this regard, and the impact would remain less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Geology and Soils

Seismic Hazards

The Planning Area falls within zones of the most severe shaking intensity in the Bay Area. Intense ground shaking has the potential to damage buildings and puts people at risk. A substantial portion of the Planning Area along Lake Merritt Channel is also within a liquefaction hazard zone, as identified by the California Geological Society. Liquefaction could damage structures and place people at risk through processes of differential settlement or lateral spreading.

The ACTC Defined No Project Alternative would involve almost exactly the same amount of overall new development as the proposed Plan, and would be comparable to the proposed Plan in terms of potential impacts. Under both, new development would be required to complete soil reports and follow the California Building Code's current seismic standards. Additionally, new development within the Seismic Hazard Zone would also have to complete a geotechnical study that analyzes liquefaction potential and includes a detailed engineering analysis. Adherence to these regulations would reduce the potential impact of seismic hazards to less than significant for both the proposed Plan and this alternative.

Expansive Soil

The Planning Area is likely to have portions underlain with Bay Mud and artificial fills, soils which have the potential to shrink and swell. The placement of new buildings may compress such expansive soils, potentially causing irregular settlement and leading to structural damage. The ACTC Defined No Project Alternative would result in the same amount of development as the proposed Plan, and the two scenarios would put a similar number of buildings and people at potential risk due to expansive soils. Adherence to

the Uniform Building Code and to City of Oakland SCA, in particular SCA 58 (Soils Report) and SCA 60 (Geotechnical Study, within the Seismic Hazard Zone) make this potential impact less than significant for the proposed Plan and this alternative.

Wells, Landfills and Other Soil Irregularities

The Planning Area could contain old wells, pits, mounds, tank vaults, or unused sewer lines, some of which may be on potential development sites. Following the City's Grading Permit requirements, such soil irregularities would need to be removed or filled prior to permitting, reducing this potential impact to less than significant for both the proposed Plan and this alternative.

Hazards and Hazardous Materials

Hazardous Materials Use and Transport

Future commercial land uses are likely to involve the use, storage, transportation, and disposal of hazardous materials such as paints, solvents, cleaning agents, and other chemicals, which could create a potential hazard for area residents, workers and visitors. However, with implementation of existing regulations administered by the City's Fire Prevention Bureau, including the requirement for a Hazardous Materials Business Plan as reinforced by SCA 74, this potential hazard becomes less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Hazardous Materials Upset and Accident Conditions

Accidental release during construction projects and other activities could expose people and the environment to hazardous materials. This potential impact is less than significant for the proposed Plan and this alternative given federal and state laws governing the use, management, and disposal of hazardous materials, and SCA 35, which requires the use of Best Management Practices.

Excavation and site work as part of new development could result in disturbance and exposure of known or unknown contaminants. The City of Oakland's SCAs include a requirement for all construction sites to take all appropriate measures to protect human health and the environment if potential contamination is found. On sites that have been identified in City records for hazardous materials, additional strict SCAs apply, reducing this potential impact to less than significant for the proposed Plan and this alternative.

Demolition of existing structures, especially older structures that may contain hazardous building materials, could expose construction workers, the public, or the environment to these materials. This potential hazard is reduced to less than significant for the proposed Plan and this alternative by adherence to federal and state laws, in particular OSHA and Cal-OSHA, as well as SCAs that relate specifically to projects that include the redevelopment or reuse of historically industrial or commercial buildings and to sites that are identified on the Cortese list.

Hazardous Materials near Sensitive Receptors

The Planning Area is a dense, urbanized environment in which contaminated sites may be in the vicinity of substantial numbers of housing units, schools and parks. The potential impacts of hazardous materials on sensitive receptors is less than significant for the proposed Plan and this alternative through compliance with all existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor.

Hazardous Materials near Schools

The Planning Area contains eight public or charter schools enrolling nearly 2,000 students. Laney College serves another 13,000 post-secondary students. All schools are within one quarter-mile of one or more contaminated sites. Because projects are required to comply with existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor, as well as requirements reinforced by SCA 74. As a result, the potential impacts of hazardous materials on schools and sensitive receptors are less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Development on Contaminated Sites

The Planning Area includes 16 sites that are on the State's "Cortese list," including three clean-up sites under Department of Toxic Substances Control authority and 13 under authority of the Regional Water Quality Control Board. Any development of these sites will be required to adhere to all clean-up requirements as stipulated by the State agency with jurisdiction, and will also be required to comply with all SCAs that apply specifically to sites with known contamination. Specific development sites have not been identified for the ACTC Defined No Project Alternative, though the most likely development sites are based on factors (vacant and under-utilized land) that are common to the proposed Plan and all of the alternatives. Enforcement of existing requirements will reduce this potential impact to a less than significant level for the proposed Plan and this alternative.

Emergency Access

Most of the Planning Area has a traditional street grid pattern, while the central portion is made up of large "super blocks" around Laney College, the Kaiser Auditorium, and the Channel. The same as the proposed Plan, the ACTC Defined No Project Alternative would not vacate any street or otherwise result in the existence of streets exceeding 600 feet in length that have fewer than two emergency response routes, resulting in a less than significant impact for the proposed Plan and this alternative.

Emergency Response and Evacuation

The potential impact on emergency access and emergency response would be less than significant for the proposed Plan and this alternative. The ACTC Defined No Project Alternative would not include the streetscape improvements that are proposed in the Station Area Plan, but these improvements are not expected to materially impact emergency access.

Hydrology and Water Quality

Water Quality Standards and Waste Discharge Requirements

Both construction and permanent development patterns have the potential to affect water quality. On sites of one acre or more, new construction projects will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) under the General Construction Permit, and all construction projects will be subject to City of Oakland SCAs. Incorporation of Best Management Practices (BMPs) as required will reduce the potential impacts to water quality resulting from erosion and siltation caused by construction to less than significant for the proposed Plan and this alternative. The ACTC Defined No Project Alternative would not include the streetscape improvements and additional policies regarding stormwater runoff that are proposed in the Station Area Plan. However, though potential impacts for this alternative would then be greater, they would still be less than significant.

Groundwater Recharge

Neither the ACTC Defined No Project Alternative nor the proposed Plan is expected to increase the amount of impervious surface area in the Planning Area, resulting in a less than significant impact for both. However, this alternative would lack the streetscape improvements and additional policies for low-impact stormwater management included in the proposed Plan, so its impact may be greater than that of the proposed Plan.

Erosion or Siltation

Potential impacts of development on erosion or siltation are possible under both the ACTC Defined No Project Alternative and the proposed Plan. However, they are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations. Though the ACTC Defined No Project Alternative would not include the streetscape improvements and additional proposed Plan policies regarding stormwater runoff that are proposed by the Station Area Plan, the potential impact would still be less than significant for this alternative, the same as the proposed Plan.

Substantial Flooding

New development has the potential to increase runoff, which could result in substantial flooding hazards on- or off-site. However, these potential effects are minimized by the fact that new development will take place on already urbanized sites and will be required to adhere to existing regulations, reducing the impact to less than significant. Though the ACTC Defined No Project Alternative would not include the streetscape improvements and additional Plan policies regarding stormwater runoff that are proposed by the Station Area Plan, the potential impact would still be less than significant for all alternatives.

Stormwater Drainage System

The ACTC Defined No Project Alternative would not include the proposed additional stormwater policies included in the Station Area Plan. However, in general, new development is not expected to significantly increase the amount of runoff due to the highly-urbanized existing context and to the requirements of the City's LID policies, resulting in a less than significant impact for the proposed Plan and this alternative.

Runoff and Other Potential Sources of Water Quality Degradation

Intensification of the urban environment has the potential to result in increased runoff, which could be the source of additional polluted runoff. The ACTC Defined No Project Alternative would not include the additional stormwater policies proposed in the Station Area Plan. However, new development will take place on already urbanized sites and will be required to adhere to all existing regulations and SCAs, making this potential impact less than significant for the proposed Plan and this alternative.

Housing and Structures in a Flood Hazard Area

The Planning Area has a small 100-year flood zone that is almost entirely confined to park land along Lake Merritt and Lake Merritt Channel. Existing building code requirements, SCAs, and the Creek Protection Ordinance would apply to all new development. The ACTC Defined No Project Alternative does not include the requirement for a 100-foot setback from the Channel that is proposed in the Station Area Plan. Nevertheless, existing regulations concerning building in a flood zone and requirements for a

Creek Protection permit make the potential for new housing or structures to impede or redirect flood flows less than significant for the proposed Plan and this alternative.

Exposure to Flooding, and Sea Level Rise

Exposure to Flooding

The ACTC Defined No Project Alternative lacks the proposed requirement for a 100-foot setback from the Channel that is included in the proposed Plan. Nevertheless, existing regulations concerning building in a flood zone and requirements for a Creek Protection permit would apply. Adherence to all building code requirements and SCA as well as the Creek Protection Ordinance will make the potential for the exposure of people or structures to a substantial risk of loss, injury, or death related to flooding less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Sea Level Rise

Portions of the Planning Area along Lake Merritt and Lake Merritt Channel, as well as adjacent land at the Peralta Community College District Administration site, could be at risk of potential sea level rise. None of this land is expected to be developed with housing or other uses that would place people at risk. Current potential sea level rise maps do not account for existing flood protection structures. Portions of the Planning Area potentially exposed to 16-inch and 55-inch sea level rise are being studied as part of BCDC's *Adapting to Rising Tides* project. The project will further identify potential adaptation strategies to mitigate the effects of sea level rise. Adaptation strategies will likely require the involvement of regional, state and federal partners.

Furthermore, implicit in the discussion of global warming, greenhouse gas emissions and sea level rise is that it extends beyond specific development projects, a specific plan area, or, indeed, an entire City. The adopted Bay Plan and Oakland's Draft Energy and Climate Action Plan (ECAP) specifically recognize this and include actions to participate in the preparation of a regional climate adaption strategy. It is reasonable to expect that sea level rise projections will become incorporated into flood hazard mapping, and that existing policies and regulations that provide protection from flooding will also apply to areas where potential sea level rise will occur. Although the ACTC Defined No Project Alternative lacks the proposed requirement for a 100-foot setback from the Channel that is included in the proposed Plan, the potential impact is less than significant for the proposed Plan and this alternative.

Tsunami, Seiche, or Mudflow

A small portion of the Planning Area along Lake Merritt Channel is within the tsunami runup zone. This zone is mapped for emergency response planning purposes and does not dictate any restriction in land use. The Planning Area is not susceptible to seiche or mudflow, making this impact less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Drainage Pattern

None of the alternatives is expected to directly alter the course or increase the rate or amount of flow of a creek. Potential indirect impacts that could result in substantial alteration of drainage patterns leading to erosion, siltation, or flooding are reduced to less than significant for the proposed Plan and this alternative through adherence to existing regulations and SCAs.

Creek Protection

Creek impacts would be less than significant for the proposed Plan and the ACTC Defined No Project Alternative and the proposed Plan as a result of enforcement of the City's Creek Protection Ordinance.

PLANNING AREA TRENDS-BASED NO PROJECT

The Planning Area Trends-Based No Project Alternative is a low growth scenario that assumes no adoption of the proposed Plan and assumes future growth in the Planning Area based on current and historic trends, as described above. This alternative assumes continuation of the current General Plan and zoning regulations and none of the policies in the proposed Plan. Overall, this alternative results in just under 50 percent of proposed Plan residential development, 44 percent of proposed Plan office development, 18 percent of proposed Plan retail development, and 186 percent of proposed Plan institutional development.

Land Use, Planning, Population and Housing

Physical Division of an Established Community

Neither the proposed Plan nor the Trends-Based No Project Alternative proposes development that would physically divide any established communities. The proposed Plan, however, includes additional streetscape improvements intended to foster connectivity and mitigate the divisive effects of I-880 and other less well-integrated features of the neighborhood. The Trends-Based No Project Alternativedoes not include these improvements. Specifically, it omits the improved street crossings and I-880 undercrossings proposed in the Station Area Plan. Nevertheless, this alternative results in a less than significant impact, the same as the proposed Plan.

Fundamental Land Use Conflicts

Neither the proposed Plan nor the Trends-Based No Project Alternative is expected to have a significant impact on existing land uses in the Planning Area. However, of the two, the Trends-Based No Project Alternative would have a greater potential impact. This is because the existing regulations assumed under the Trends-Based No Project Alternative allow for taller buildings not subject to the district-specific design guidelines proposed by the Station Area Plan. For example, in the blocks near Madison Square Park and in the 7th Street/Harrison Square Residential District, zoning regulations currently allow buildings with bases of up to 85 feet and towers of up to 275 feet. The proposed Plan would reduce maximum base and/or tower heights in these areas. Without such guidelines, development under the Trends-Based No Project Alternative is less likely to be sensitive to site contexts in scale or form, and thus more likely to conflict with surrounding land uses. However, because development projects under this alternative would still be subject to design review, it can be considered to have a less than significant overall impact, the same as the proposed Plan.

Conflicts with Applicable Plans and Regulations

The Trends-Based No Project Alternative would not conflict with existing zoning regulations since no changes are included, though it would be less effective than the proposed Plan in helping the City to meet its General Plan goals. Nevertheless, both the Trends-Based No Project Alternative and the proposed Plan would have less than significant impacts related to conflicts with applicable plans and regulations.

Displacement of Housing or People

The Trends-Based No Project Alternative is projected to produce 2,300 net new housing units in the Planning Area by 2035, compared to 4,600 projected for the proposed Plan. Because this number is still higher than the number of units anticipated to be lost with new development, and because the City's Ellis Act Ordinance entitles low-income households to relocation assistance should landlords remove their properties from the rental market, the potential impact on households displaced by new development by either the proposed Plan or this alternative is less than significant.

Inducement of Population Growth

The Trends-Based No Project Alternative would result in lower population and job growth than is projected for the region by ABAG and ACTC, and so would be slightly less likely to have growth-inducing effects within the Planning Area compared to the proposed Plan. This may mean that the remaining ABAG and ACTC projected growth would take place in other areas of Oakland or the Bay Area. However, because this alternative doesn't force growth elsewhere and retains substantial allowable zoning, the impact is less than significant, the same as the proposed Plan.

Transportation

As discussed earlier, the potential for an alternative to result in fewer traffic impacts than the proposed Plan is measured in terms of Level of Service (LOS) at intersections, and roadway and highway segments, based on the City's CEQA thresholds. Performance measures of LOS vary by facility type but regardless of the type of facility, the LOS is based on peak hour traffic volumes and, consistently across all measures of LOS, as the volume increases the LOS degrades. Therefore, in this less detailed assessment of the potential impacts of the alternatives, PM peak hour traffic volume is a proxy for LOS.

The Planning Area Trends-Based No Project assumes that development in the Planning Area will continue with the same density and type of land use in the same proportions that have occurred since 2005. By 2035, this development trend would result in less than half of the dwelling units and population, and less than half of the jobs of the other alternatives, and therefore the lowest trip generation and the lowest level of LOS degradation.

Comparative Trip Generation Analysis

Table 4.3-1 (above) compares the net change in land use between the scenarios as well as the estimated PM peak hour trips generated by the increment of change in the land use. The trip generation estimates include adjustments for internal capture, mode share, and pass-by capture for retail uses. Table 4.3-1 compares the difference in PM peak hour trip generation between the Planning Area Trends-based No Project Alternative, and the proposed Plan. This slow growth alternative generates the least amount of traffic of the alternatives—including less than half of the PM peak hour traffic generated by the proposed Plan—With fewer households, a very small amount of retail and office uses, the Trends-Based No Project Alternative will produce less interaction between land uses, less internal capture of trips, and a higher likelihood that residents and workers in the Planning Area will drive automobiles in order to travel to other parts of Oakland or the East Bay seeking a greater diversity of retail, dining, and entertainment uses lacking in the Planning Area. Although the Trends-Based No Project Alternative would not eliminate the significant and unavoidable impacts occurring on the freeways as identified in Chapter 3.2 for the proposed Plan, the alternative's substantially lower traffic generation would reduce the number of mitigable impacts. Therefore, this alternative results in impacts substantially less than the project impact.

Air Quality

Clean Air Plan Consistency – Control Measures

Whereas the proposed Plan includes policies that support the implementation of relevant transportation control measures (TCMs) and land use and local impact measures (LUMs) contained in the Bay Area 2010 Clean Air Plan, the Trends-Based No Project Alternative does not include these same policies. Therefore, this alternative would result in a potentially significant impact regarding the implementation of Clean Air Plan control measures, while the proposed Plan would not. However, existing Oakland General Plan policies and SCAs would be expected to reduce this impact to less than significant, the same as the proposed Plan. Clean Air Plan Consistency – Vehicle Trip Growth Compared to Population Growth

The Trends-Based No Project Alternative would result in a 22 percent increase in PM peak hour vehicle trips and a 75 percent increase in population. The proposed Plan would result in a 49 percent increase in PM peak hour vehicle trips and a 162 percent increase in population. In both cases, population growth is expected to exceed vehicle trip growth, resulting in a less than significant impact. The margin of difference for this alternative is lower than that of the proposed Plan.

Toxic Air Contaminants

For an alternative to be less than significant in this category, it must not expose persons, by siting a new source or a new sensitive receptor, to substantial levels of toxic air contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter. Analysis of this impact considers potential exposure of residents to sources of TACs as well as implementation of policies and inclusion of mapping that address toxic air contaminants and overlay zones surrounding the I-880 Freeway.

While the proposed Plan includes mapping complementing City SCAs that indicates a less than significant impact at the Plan-level, the Trends-Based No Project Alternative would not involve the adoption of a new Plan. Therefore, the Trends-Based No Project Alternative would remain potentially significant at the Plan-level of analysis.

The overall impact of potential exposure to gaseous TACs remains significant and unavoidable for both the proposed Plan and the Trends-Based No Project Alternative. While City of Oakland SCAs B and C will reduce impacts associated with particulate matter and reduce impacts related to gaseous TACs to the extent feasible, there are no known feasible technologies or site planning considerations that have been shown to reduce risks of gaseous TACs.

Odors

Both the proposed Plan and the Trends-Based No Project Alternative would result in a significant and unavoidable impact regarding odors. As with the other alternatives, this alternative would add new sensitive receptors within the Planning Area. Numerous odor sources already exist in and around the Planning Area, such that the entire Planning Area is potentially subject to odors today. The only available mitigation measure for reducing the potential impact would be to increase the distance between sources and sensitive receptors. Because this would require moving existing sensitive receptors and/or odor sources, this measure is not feasible.

Greenhouse Gases

Total and Per Service Population Emissions

Each alternative was run through the CalEEMod model, making adjustments to land use assumptions and policy modifications as appropriate. Model outputs are shown in **Table 4.3-2**. The Trends-Based No Project Alternative would result in less overall development and a smaller service population than the proposed Plan. This scenario results in lower overall emissions based on CalEEmod outputs (though still exceeding the 1,100 $MTCO_2e$ per year threshold), but also in a higher per service population rate of GHG emissions when compared to the proposed Plan. This alternative is the only alternative to exceed the 4.6 $MTCO_2e$ per service population threshold in the default scenario with 4.85 $MTCO_2e$ per service population, though in the modified scenario, which incorporate existing City of Oakland policies, it meets the service population threshold with 3.82 $MTCO_2e$ per service population (**Table 4.3-2**). Since GHG emissions per service population is less than 4.6, the Trends-Based No Project would result in a less than significant impact, the same as the proposed Plan.

Plan Consistency

Both the Trends-Based No Project Alternative and the proposed Plan would meet per service population emissions thresholds (as described above) and be subject to City policies and SCAs, ensuring that new development is consistent with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions, resulting in a less than significant impact for both the proposed Plan and this alternative.

Parks and Recreation

Substantial Physical Deterioration

The Trends-Based No Project Alternative does not include the proposals for new park land, open space improvements, and access improvements that are part of the proposed Plan. It would only involve the addition of park land around Lake Merritt and Lake Merritt Channel that has already been planned and funded, resulting in less total park land than would the proposed Plan. However, this alternative would also result in a much lower total population than the proposed Plan, meaning that it has the highest future park ratio of all of the alternatives. The area's overall park land ratio would fall from 3.9 to 2.6 acres per 1,000 residents (compared to 2.0 under the proposed Plan), and its ratio of neighborhood-serving park land would decline from 0.7 to 0.4 acres per 1,000 (compared to 0.3 under the proposed Plan). **Table 4.3-3** summarizes park acreage and ratios for each alternative. However, as a result of existing policies and planned park improvements, the impact of this alternative is less than significant, the same as the proposed Plan.

Construction or Expansion of Recreational Facilities

The Trends-Based No Project Alternative would create less new park land than the proposed Plan. New parks would be located on already developed land. This potential impact is less than significant for the proposed Plan and the Trends-Based No Project Alternative.

Public Services

Fire Services

The Planning Area is well-served by the Oakland Fire Department (OFD); allocation of fire services would be based on citywide development trends, and would follow existing City of Oakland General Plan policies for ensuring fire service provision. All new development is required to adhere to State and City codes, as well as SCAs concerning fire safety.

Compared to the proposed Plan and the other alternatives, the Trends-Based No Project Alternative would result in fewer new housing units, fewer additional residents, and fewer jobs, as well as less office and retail space. For all of the alternatives, the Planning Area's role in overall growth of the City is the smallest in the Trends-Based No Project Alternative. Consequently, it would be less of a factor in OFD's planning for fire services than it would under any of the other alternatives. In addition, the Trends-Based No Project Alternative would likely mean fewer high-rise buildings overall. While OFD and the City's building and fire codes are adequate to protect high-rise buildings, this building type nevertheless presents a larger challenge. This Alternative would have the lowest impact of any alternative in this category. Overall, the proposed Plan and Trends-Based No Project would both result in a less than significant impact .

Police Services

Population growth in the Planning Area would decrease the Police Department's service ratio of officers per 1,000 people unless the growth is accompanied by additional staffing. The Trends-Based No Project Alternative would result in fewer new housing units and fewer additional residents, as well as less office and retail space and fewer jobs, when compared to the proposed Plan and other alternatives. This alternative would have the lowest potential impact on the Police Department's service ratio, though less development would mean a smaller amount of additional revenue to pay for City services. Further, the Trends-Based No Project Alternative would not include proposed Plan efforts to enhance safety by expanding the Ambassador program and making safety-oriented design an important criterion for public space improvements and new building design, making this Alternative slightly less effective than the proposed Plan at minimizing the potential impact of new development on police services. Overall, since police services will be allocated based on citywide needs, and growth in the Planning Area represents a only a small percent of overall growth in the City, the proposed Plan and Trends-Based No Project Alternative would both result in a less than significant impact.

Schools and Other Community Facilities

Six Oakland Unified School District (OUSD) schools serve Planning Area students, and there are four charter schools in the Planning Area. These schools have the estimated available capacity for 419 additional elementary students and, 546 additional middle school students. There is an existing capacity shortage for 124 high school students. There may be a local shortage of space at the high school and elementary school levels at Plan buildout.

The Trends-Based No Project Alternative would result in approximately 5,300 fewer additional residents compared to the proposed Plan, resulting in between 158 and 437 new students in the Planning Area (as compared to 336 to 931 new students under the proposed Plan, see **Table 4.3-4**). This alternative results in the smallest impact to school capacity of all of the alternatives. At the district scale, there is recognized to be adequate capacity for OUSD schools to absorb a substantially greater number of students than are

currently enrolled. The Trends-Based No Project Alternative would also result in slightly lower pressure on other community services, but would not have the proposed Plan's support for additional community facilities as part of new development.

OUSD citywide facilities are estimated to have the capacity to support 43,520 to 69,630 students. If development under the proposed Plan or Trends-Based No Project Alternative generates more students than local schools can accommodate, these students should be able to find a place in schools outside the Planning Area. More local students may also be absorbed at Planning Area schools if they use the Open Enrollment priority system to enroll in the local schools. The Planning Area is well-served by libraries.

Given the above factors, the Trends-Based No Project would result in a less than significant impact, the same as the proposed Plan.

Utilities and Service Systems

The Planning Area is urbanized and serviced by utilities and service systems. The Trends-Based No Project Alternative would result in less development overall than the other alternatives, including the proposed Plan, and therefore would place relatively less increased demand on utilities and service systems.

Wastewater Treatment Requirements and Facilities

The Planning Area Trends-Based No Project Alternative results in less need for increased wastewater treatment and facilities. While the impact would be slightly less under this alternative, both the Trends-Based No Project and the proposed Plan would result in a less than significant impact.

Stormwater Drainage Facilities

As the same sites would be developed under both the Trends-Based No Project Alternative and the proposed Plan, the potential impacts on stormwater drainage facilities would be the same. Both impacts would be less than significant for the proposed Plan and the Trends-Based No Project.

Water Supply

There would be less demand for water services under the Trends-Based No Project Alternative than under the proposed Plan. While the impact would be slightly less under this alternative, both the Trends-Based No Project and the proposed Plan would result in a less than significant impact

Landfills and State Waste Diversion Requirements

As described in Section 3.7, landfills serving the City of Oakland together have substantial capacity through the planning horizon. Therefore, it is expected that development under the Trends-Based No Project Alternative would be served by a landfill with sufficient permitted capacity to accommodate future solid waste disposal needs. It would not require or result in construction of landfill facilities or expansion of existing facilities, and could thus avoid the significant environmental effects associated with those activities. As the alternative with the lowest amount of development, it is expected that the Trends-Based No Project Alternative would result in the lowest increase in waste disposal need. However, given overall landfill capacity, the difference between the alternatives would not be substantial.

Further, the Trends-Based No Project Alternative would not impede the ability of the City to meet the waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. All new development projects would be subject to SCA 36, *Waste Reduction and Recycling*, which requires the preparation of an Operational Diversion Plan to identify how projects would comply with the City's Recycling Space Allocation Ordinance (Chapter 17.118 OMC). Therefore, the Trends-Based No Project Alternative, as with the proposed Plan, would have a less than significant impact on solid waste services and landfill capacity.

Energy Standards and Provision

As with the proposed Plan, projects under the Trends-Based No Project Alternative would comply with all standards of Title 24 of the California Code of Regulations, which requires construction projects to incorporate energy-conserving design measures into projects. Further, under CALGreen, which the City has adopted, a green building should achieve at least a 15-percent reduction in energy usage when compared to Title 24. Given this regulatory context, the impact is less than significant for the proposed Plan and this alternative.

Cultural and Historic Resources

Historic Resources

The Planning Area contains 187 properties that appear to meet the City of Oakland's thresholds of significance for historic resources. Specific opportunity sites have not been identified for the Trends-Based No Project Alternative. However, it is assumed that, given its lower growth projections, there will be fewer development projects overall, and that those projects may be more likely to occur in a lower-height, lower-density format. Reduced overall development would lessen the impact on historic resources under this alternative. Existing SCAs and regulations protecting historical resources would mitigate any potential impact of *overall* redevelopment in the Planning Area, but will not be able to reduce the potential impact of demolition of OUSD or County property to a level that is less than significant. Further, this alternative would not include plan policies or Mitigation Measure CUL-1. Thus this impact is significant and unavoidable for the proposed Plan and this Alternative.

Archaeological Resources

The Planning Area includes six recorded archaeological resources and is considered to have a high potential for having additional unrecorded Native American resources. Thus, additional discoveries of archeological or Native American resources may be likely. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCAs, make these potential impacts less than significant for the Trends-Based No Project Alternative, the same as the proposed Plan.

Human Remains

There is potential for construction activities from new development under the proposed Plan to impact human remains in the Planning Area. If human remains of Native American origin are discovered during project construction, the developer and/or City staff would be required to comply with State laws relating to the disposition of Native American burials, as well as follow the City of Oakland's SCA 53, *Human Remains*, making this potential impact less than significant for the proposed Plan and this alternative.

Paleontological Resources

The geological units underlying the Planning Area are considered to have a low to moderate paleontological sensitivity. It is possible that fossils could be discovered during excavation facilitated by development. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCA, make these potential impacts less than significant for the Trends-Based No Project Alternative, the same as the proposed Plan.

Aesthetics

Scenic Vistas

The Planning Area contains notable scenic vistas along Lake Merritt and the Lake Merritt Channel, over Lake Merritt toward the downtown skyline and the Oakland Hills, and toward historic structures such as Kaiser Auditorium. Specific opportunity sites have not been identified for the Trends-Based No Project Alternative. However, it is assumed that given the lower growth projected for this alternative, there will be fewer development projects overall, and that those projects may be more likely to occur in a lower-height, lower-density format. Reduced development and the expectation for lower height buildings on certain sites would lessen the overall impact with regard to scenic views under this alternative, though overall, this impact would be less than significant for both the proposed Plan and this alternative.

Visual Character and Quality

Parts of the Planning Area have distinctive visual character and qualities, in particular the Chinatown Commercial District and the 7th Street/Harrison Square Residential District, as well as other areas significant for their historical value. It is assumed that given the lower amount of growth projected for the Trends-Based No Project Alternative, there will be fewer development projects overall, and that those projects may be more likely to occur in a lower-height, lower-density format. Reduced overall development and the expectation for lower-height buildings on certain sites may be more similar in massing to existing development. However, The Trends-Based No Project Alternative would lack the Station Area Plan's proposed design guidelines to improve overall visual quality. This would make the Trends-Based No Project Alternative less successful than the proposed Plan in maintaining visual quality. Nevertheless, with adherence to existing regulations, the impact would be less than significant for both the proposed Plan and this alternative.

Light and Glare

Development in the Planning Area has the potential to add light and glare, but this impact is less than significant given the existing urbanized character of the Planning Area and the effects of existing regulations governing light. It is assumed that given the lower amount of growth projected for the Trends-Based No Project Alternative, there will be fewer development projects overall, and that those projects may be more likely to occur in a lower-height, lower-density format. The impact is less than significant for this alternative, the same as the proposed Plan.

Shadows on Public or Quasi-Public Spaces

It is assumed that given the lower amount of growth projected for the Trends-Based No Project Alternative, there will be fewer development projects overall, and that those projects may be more likely to occur in a lower-height, lower-density format. However, this alternative assumes current zoning regulations and does not include the same set of regulatory height areas included in the proposed Plan.

Without these proposed height areas, the Trends-Based No Project Alternative would allow taller buildings than those allowed under the proposed Plan in many parts of the Planning Area, including sites that are adjacent to public parks. Nevertheless, with implementation of existing design review procedures, the potential for new development to cast shadows that substantially impair the beneficial use of public open spaces is less than significant for the Trends-Based No Project, the same as the proposed Plan.

Exception to Existing Policies or Regulations

The Trends-Based No Project Alternative assumes the continuation of existing regulations, and thus would not conflict with them, resulting in a less than significant impact. The proposed Plan would also have a less than significant impact.

Noise

Construction Noise

Construction projects could expose residential uses to noise that would exceed General Plan standard of 80 and 85 dBA for short-term construction noise at receiving residential uses and commercial or industrial uses, respectively, for some distance around construction sites. The Trends-Based No Project Alternative is projected to result in lower buildings at some sites and a smaller amount of overall development than the proposed Plan. This should translate into shorter construction periods in some locations, and thus a lesser impact compared to the proposed Plan. The existing City of Oakland SCA would apply to all alternatives, limiting construction hours, requiring a noise reduction program including the use of best available control techniques on machinery, requiring that stationary noise sources are located as far from adjacent receptors as possible, and providing strict requirements for the use of impact tools such as jack hammers. Adherence to these requirements reduces this potential impact to a level that is less than significant for both the proposed Plan and this alternative.

Operational Noise

The Trends-Based Alternative is projected to result in substantially less intensive development than the proposed Plan, which could translate to less noise from mechanical equipment. Neither is expected to result in new land uses that would generate substantial noise, such as automotive or industrial uses, and in some cases may result in the replacement of such uses. New buildings would result in noise from mechanical equipment, but this equipment would be standardized for noise reduction and is not expected to exceed Noise Ordinance thresholds. In addition, enforcement of the City's SCA 32, Operational Noise, would reduce any future operational noise impact to less than significant for both the proposed Plan and this alternative.

Increase in Ambient Noise

New development is expected to affect the ambient noise environment by generating additional traffic, and by adding new sources of operational noise such as mechanical equipment. The Planning Area Trends-Based No Project Alternative would be expected to involve the least amount of new development of all of the alternatives, and consequently the least amount of additional traffic and traffic-related noise increases. Both this alternative and the proposed Plan would result in less than significant impacts.

Interior Noise

To achieve California Noise Insulation Standards, many new buildings with residential uses will need to achieve substantial noise reduction from exterior noise levels. The City's SCA 31 mandates incorporation of noise reduction measures into project design to achieve an acceptable interior noise level for residential uses. The Trends-Based No Project Alternative would result in less new development than the proposed Plan subject to interior noise standards. With enforcement of existing City SCAs, potential impacts related to interior noise are reduced to less than significant for the Trends-Based No Project Alternative, the same as the proposed Plan.

Community Noise Environment

The Trends-Based No Project Alternative would exceed community noise guidelines the least among the alternatives because there would be less traffic-related noise. The City of Oakland's General Plan and Noise Ordinance provide a strong policy framework for minimizing noise impacts and SCA 31 requires that noise reduction in the form of sound-rated assemblies (windows, exterior doors, and walls) and/or other measures is incorporated into project design. Other SCAs described in the Regulatory Setting section ensure that noise and vibration from construction and operations are minimized. Implementation of these policies, standards, and conditions of approval would ensure that the noise environment in the Planning Area does not increase in a manner that worsens existing land use compatibility or exposes noise-sensitive land uses to "unacceptable" noise levels. This will be true in the 2035 buildout year and at any time during the planning period. Any potential noise impacts are thus reduced to a less than significant level for the Trends-Based No Project Alternative, the same as the proposed Plan.

Workplace Noise

The Trends-Based No Project Alternative would result in less new development subject to workplace noise standards than the proposed Plan. Neither the Trends-Based No Project Alternative nor the proposed Plan is expected to result in new permanent land uses involving noise-generating activities that would significantly impact interior operational noise levels in workplaces. However, construction activities could potentially expose workers to excessive noise exposure. By enforcing existing City SCAs and federal, State, and local regulations including Cal-OSHA standards, potential impacts related to occupational noise would be reduced to less than significant for both the proposed Plan and this alternative.

Groundborne Vibration

The only permanent source of vibration in the Planning Area is the Union Pacific/Amtrak rail line along the southern edge of a portion of the Planning Area. Currently, this land is occupied by light industrial and parking uses. If development of vibration-sensitive use does occur here, SCA 38 would require acoustical analysis and vibration reduction strategies as needed. Construction–related groundborne vibration would be temporary in nature and related noise impacts would be short-term. The Trends-Based No Project Alternative would result in fewer new residents and less new construction than the proposed Plan. With adherence to SCA 38, limiting construction hours, and SCA 39, requiring site-specific noise attenuation measures for all projects involving pile driving or other extreme noise generation, this potential impact would be less than significant for the proposed Plan and this alternative.

Biological Resources

Special Status Species

All of the alternatives, including the Trends-Based No Project Alternative and the proposed Plan, would be subject to all existing regulations that protect special status species. These include SCA 44, which limits the impact of tree removal on nesting birds, and other SCAs that ensure LID approaches that will improve water quality in Lake Merritt over the long term. There have been 12 special status species identified as having moderate or high potential to occur, or are known to occur, in or adjacent to the Planning Area, with another nine considered to have a low potential to occur. The Trends-Based No Project Alternative would lack the proposed Plan's policies to extend Channel park land and establish a clear development setback, making it less effective than the proposed Plan in protecting special status species. However, given proper adherence to existing regulations, impacts would be less than significant for the proposed Plan and this alternative.

Riparian Habitat

Though no riparian habitat or sensitive natural community currently exists in the Planning Area, planned improvements along Lake Merritt Channel will add new vegetation and potentially create riparian habitat. The Trends-Based No Project Alternative would include these planned improvements. The Trends-Based No Project Alternative does not, however, include the same proposal for future park development along the Channel that exists in the proposed Plan, and so may have fewer beneficial impacts as compared to the proposed Plan. Given adherence to existing City of Oakland SCAs that ensure that riparian corridors are protected as new development takes place, impacts on riparian habitat would be less than significant for the proposed Plan and this alternative.

Wetlands

Currently, only a small section of Lake Merritt Channel and its banks is classified as wetland eligible for federal protection. Measure DD improvements include restoration in this area that would create additional areas of open water and marsh, potentially creating additional wetlands. Any project in the Planning Area that would impact these wetlands would be subject to Clean Water Act provisions. Thus, potential impacts would be less than significant for the proposed Plan and the Trends-Based No Project Alternative.

Wildlife Movement and Wildlife Nursery Sites

Increased recreational use of Lake Merritt Channel by boaters could potentially impact the use of the Channel by water birds. To minimize this potential impact to a less than significant level, both the Trends-Based No Project Alternative and the proposed Plan would restrict small-boat use of Lake Merritt Channel to the non-wintering period of April to September, consistent with Measure DD Mitigation Measures. While the Trends-Based No Project would have a less than significant impact consistent with the proposed Plan, it does not involve the future extension of parkland along Lake Merritt Channel that is proposed in the Station Area Plan. Therefore, its impact may be greater than that of the proposed Plan.

Development under both the Trends-Based No Project Alternative and the proposed Plan is expected to include new tall buildings and lighting, potentially resulting in additional impacts on migrating birds. The Trends-Based No Project Alternative assumes existing zoning regulations, which do not include the new base and building height limits and upper story setback requirements proposed in the Station Area Plan. Therefore, this alternative would allow taller and bulkier buildings in several sections of the Planning Area than would be allowed under the proposed Plan, including an area along the Lake Merritt Channel

with no height limit. However, it is assumed that the lower growth projected for the Trends-Based No Project Alternative would lead to fewer development projects overall, which may be more likely to occur in a lower-height, lower-density format . Lower expected building heights here would reduce the potential impacts for this alternative. While adherence to existing regulations, particularly SCA D, would ensure that the potential impact is less than significant for this alternative, it may result in a greater impact than that of the proposed Plan.

Both the Trends-Based No Project Alternative and the proposed Plan include Measure DD-funded improvements, which will result in extensive changes to existing vegetation and are relevant to nesting habitat for bird species in the Planning Area. These improvements have undergone environmental review and will comply with all SCAs relating to tree removal and protection, including SCA 44 (Tree Removal during Breeding Season). Adherence to these regulations will reduce potential impact of new development in the Planning Area on suitable nesting habitat to less than significant levels for the proposed Plan and this alternative.

Tree Protection Ordinance

Measure DD-funded improvements along Lake Merritt and the Channel involve extensive changes. The design of the Measure DD implementation project was significantly shaped by the need to adhere to the City's Tree Protection Ordinance. Elsewhere in the Planning Area, new development activities are expected to occur on parcels with very few trees. As under the proposed Plan, development under the Trends-Based No Project Alternative would adhere to the Tree Protection Ordinance, making this impact less than significant.

Creek Protection Ordinance

All properties in the Planning Area are subject to the Creek Protection Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater. Development along Lake Merritt Channel requires a Creek Protection Permit. Nearly all of this land is public park land and much of it is subject to Measure DD-funded improvements, which follow all Ordinance requirements. There is a small amount of land designated for urban uses abutting the Channel, where any development would be subject to all relevant Ordinance requirements. None of the alternatives would differ from the proposed Plan in this regard, and the impact would remain less than significant for the proposed Plan and this alternative.

Geology and Soils

Seismic Hazards

The Planning Area falls within zones of the most severe shaking intensity in the Bay Area. Intense ground shaking has the potential to damage buildings and put people at risk. A substantial portion of the Planning Area along Lake Merritt Channel is also within a liquefaction hazard zone, as identified by the California Geological Society. Liquefaction could damage structures and place people at risk through processes of differential settlement or lateral spreading.

The Trends-Based No Project Alternative would involve substantially less overall new development than the proposed Plan, thereby putting fewer buildings and people at risk of seismic hazards. Under both alternatives, new development would be required to complete soil reports and follow the California Building Code's current seismic standards. Additionally, new development within the Seismic Hazard Zone would also have to complete a geotechnical study that analyzes liquefaction potential and includes a

detailed engineering analysis. Adherence to these existing regulations would reduce the potential impact of seismic hazards to less than significant for the proposed Plan and this alternative.

Expansive Soil

The Planning Area is likely to have portions underlain with Bay Mud and artificial fills, soils which have the potential to shrink and swell. The placement of new buildings may compress such expansive soils, potentially causing irregular settlement and leading to structural damage. The Trends-Based No Project Alternative would result in less overall development and therefore would put fewer buildings and people at potential risk due to expansive soil than the proposed Plan. Adherence to the Uniform Building Code and to City of Oakland SCA, in particular SCA 58 (Soils Report) and SCA 60 (Geotechnical Study, within the Seismic Hazard Zone) make this potential impact less than significant for the proposed plan and this alternative.

Wells, Landfills and Other Soil Irregularities

The Planning Area could contain old wells, pits, mounds, tank vaults, or unused sewer lines, some of which may be on potential development sites. Following the City's Grading Permit requirements, such soil irregularities would need to be removed or filled prior to permitting, reducing this potential impact to less than significant for the proposed plan and the Trends-Based No Project Alternative.

Hazards and Hazardous Materials

Hazardous Materials Use and Transport

Future commercial land uses are likely to involve the use, storage, transportation, and disposal of hazardous materials such as paints, solvents, cleaning agents, and other chemicals, which could create a potential hazard for area residents, workers and visitors. However, with implementation of existing regulations administered by the City's Fire Prevention Bureau, including the requirement for a Hazardous Materials Business Plan as reinforced by SCA 74, this potential hazard becomes less than significant for the proposed Plan and the Trends-Based No Project Alternative.

Hazardous Materials Upset and Accident Conditions

Accidental release during construction projects and other activities could expose people and the environment to hazardous materials. This potential hazard is less than significant for the proposed Plan and this alternative given federal and state laws governing the use, management, and disposal of hazardous materials, and SCA 35, which requires the use of Best Management Practices.

Excavation and site work as part of new development could result in disturbance and exposure of known or unknown contaminants. The City of Oakland's SCAs include a requirement for all construction sites to take all appropriate measures to protect human health and the environment if potential contamination is found. On sites that have been identified in City records for hazardous materials, additional strict SCAs apply, reducing this potential impact to less than significant for the proposed Plan and this alternative.

Demolition of existing structures, especially older structures that may contain hazardous building materials, could expose construction workers, the public, or the environment to these materials. This potential hazard is reduced to less than significant for the proposed Plan and this alternative by adherence to federal and state laws, in particular OSHA and Cal-OSHA, as well as SCAs that relate specifically to

projects that include the redevelopment or reuse of historically industrial or commercial buildings and to sites that are identified on the Cortese list.

Hazardous Materials near Sensitive Receptors

The Planning Area is a dense, urbanized environment in which contaminated sites may be in the vicinity of substantial numbers of housing units, schools and parks. The potential impacts of hazardous materials on sensitive receptors is less than significant for the proposed Plan and this alternative through compliance with all existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor.

Hazardous Materials near Schools

The Planning Area contains eight public or charter schools enrolling nearly 2,000 students. Laney College serves another 13,000 post-secondary students. All schools are within one quarter-mile of one or more contaminated sites. Because projects are required to comply with existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor, as well as requirements reinforced by SCA 74. As a result of these existing regulations, the potential impacts of hazardous materials on schools and sensitive receptors are less than significant for the proposed Plan and the Trends-Based No Project Alternative.

Development on Contaminated Sites

The Planning Area includes 16 sites that are on the State's "Cortese list," including three clean-up sites under Department of Toxic Substances Control authority and 13 under authority of the Regional Water Quality Control Board. Any development of these sites will be required to adhere to all clean-up requirements as stipulated by the State agency with jurisdiction, and will also be required to comply with all SCAs that apply specifically to sites with known contamination. Specific development sites have not been identified for the Trends-Based No Project Alternative, though the most likely development sites are based on factors (vacant and under-utilized land) that are common to the proposed Plan and all alternatives. Enforcement of existing requirements will reduce this potential impact to a less than significant level for the proposed Plan and the Trends-Based No Project Alternative.

Emergency Access

Most of the Planning Area has a traditional street grid pattern, while the central portion is made up of large "super blocks" around Laney College, the Kaiser Auditorium, and the Channel. The same as the proposed Plan, the Trends-Based No Project Alternative would not vacate any street or otherwise result in the existence of streets exceeding 600 feet in length that have fewer than two emergency response routes, resulting in a less than significant impact for the proposed Plan and this alternative.

Emergency Response and Evacuation

The potential impact on emergency access and emergency response would be less than significant for the proposed Plan and this alternative. The Trends-Based No Project Alternative would not include the streetscape improvements that are proposed in the Station Area Plan, but these improvements are not expected to materially impact emergency access.

Hydrology and Water Quality

Water Quality Standards and Waste Discharge Requirements

Both construction and permanent development patterns have the potential to affect water quality. On sites of one acre or more, new construction projects will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) under the General Construction Permit, and all construction projects will be subject to City of Oakland SCAs. Incorporation of Best Management Practices (BMPs) as required will lessen the potential impacts to water quality resulting from erosion and siltation caused by construction to less than significant for both the Trends-Based No Project Alternative and the proposed Plan.

Development under the Trends-Based No Project Alternative, as with the proposed Plan, would occur on sites that are already paved or developed, meaning that there is not expected to be an increase in the amount of impervious surface in the Planning Area, and no consequent increase in stormwater runoff—a major source of water quality issues—over the life of new projects. In the Trends-Based No Project Alternative, the streetscape improvements and additional proposed Plan policies regarding stormwater runoff would not be in place. However, the City requires that LID techniques be used, making this potential impact less than significant for the Trends-Based No Project Alternative, the same as the proposed Plan.

Groundwater Recharge

Although the Trends-Based No Project Alternative lacks the additional policies for low-impact stormwater management and streetscape improvements included in the proposed Plan, neither alternative is expected to increase the amount of impervious surface area in the Planning Area. The potential impact on groundwater recharge is less than significant for both the proposed Plan and the Trends-Based No Project Alternative.

Erosion or Siltation

Potential impacts of development on erosion or siltation are possible under both the Trends-Based No Project Alternative and the proposed Plan. However, these effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations. Though the Trends-Based No Project Alternative would not include the streetscape improvements and additional Plan policies regarding stormwater runoff that are proposed by the Station Area Plan, the potential impact would still be less than significant for this alternative, the same as the proposed Plan.

Substantial Flooding

New development has the potential to increase runoff, which could result in substantial flooding hazards on- or off-site. However, these potential effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations, reducing the potential impact to less than significant. Though the Trends-Based No Project Alternative would not include the streetscape improvements and additional Plan policies regarding stormwater runoff that are proposed by the Station Area Plan, the potential impact would still be less than significant for this alternative, the same as the proposed Plan.

Stormwater Drainage System

The Trends-Based No Project Alternative would not include the proposed additional stormwater policies included in the Station Area Plan. However, in general, new development is not expected to significantly increase the amount of runoff due to the highly-urbanized existing context and to the requirements of the City's Low Impact Development policies, resulting in a less than significant impact for this alternative, the same as the proposed Plan.

Runoff and Other Potential Sources of Water Quality Degradation

Intensification of the urban environment has the potential to result in increased runoff, which could be the source of additional polluted runoff. However, new development will take place on already urbanized sites and will be required to adhere to all existing regulations and SCAs. The Trends-Based No Project Alternative would not include the proposed additional stormwater policies included in the Station Area Plan, but the potential impact would remain less than significant for this alternative, the same as the proposed Plan.

Housing and Structures in a Flood Hazard Area

The Planning Area has a small 100-year flood zone that is almost entirely confined to park land along Lake Merritt and Lake Merritt Channel. Existing building code requirements, SCAs, and the Creek Protection Ordinance would apply to all new development. The Trends-Based No Project Alternative does not include the requirement for a 100-foot setback from the Channel that is proposed in the Station Area Plan. Nevertheless, existing regulations concerning building in a flood zone and requirements for a Creek Protection permit make the potential for new housing or structures to impede or redirect flood flows less than significant for the proposed Plan and this alternative.

Exposure to Flooding and Sea Level Rise

Exposure to Flooding

The Trends-Based No Project Alternative lacks the proposed requirement for a 100-foot setback from the Channel that is included in the proposed Plan. Nevertheless, existing regulations concerning building in a flood zone and requirements for a Creek Protection permit would apply. Adherence to all building code requirements and SCA as well as the Creek Protection Ordinance will make the potential for the exposure of people or structures to a substantial risk of loss, injury, or death involving flooding less than significant for the proposed Plan and the Trends-Based No Project Alternative.

Sea Level Rise

Portions of the Planning Area along Lake Merritt and Lake Merritt Channel, as well as adjacent land at the Peralta Community College District Administration site, could be at risk of potential sea level rise. None of this land is expected to be developed with housing or other uses that would place people at risk. Current potential sea level rise maps do not account for existing flood protection structures. Portions of the Planning Area potentially exposed to 16-inch and 55-inch sea level rise are being studied as part of BCDC's *Adapting to Rising Tides* project. The project will further identify potential adaptation strategies to mitigate the effects of sea level rise. Adaptation strategies will likely require the involvement of regional, state and federal partners.

Furthermore, implicit in the discussion of global warming, greenhouse gas emissions and sea level rise is that it extends beyond specific development projects, a specific plan area, or, indeed, an entire City. The adopted Bay Plan and Oakland's Draft Energy and Climate Action Plan (ECAP) specifically recognize this and include actions to participate in the preparation of a regional climate adaption strategy. It is reasonable to expect that sea level rise projections will become incorporated into flood hazard mapping, and that existing policies and regulations that provide protection from flooding will also apply to areas where potential sea level rise will occur. Although the Trends-Based No Project Alternative lacks the proposed requirement for a 100-foot setback from the Channel that is included in the proposed Plan, the potential impact is less than significant, the same as the proposed Plan.

Tsunami, Seiche, or Mudflow

A small portion of the Planning Area along Lake Merritt Channel is within the tsunami runup zone. This zone is mapped for emergency response planning purposes and does not dictate any restriction in land use. The Planning Area is not susceptible to seiche or mudflow, making this impact less than significant for the proposed Plan and all alternatives, including the Trends-Based No Project Alternative.

Drainage Pattern

None of the alternatives is expected to directly alter the course or increase the rate or amount of flow of a creek. Potential indirect impacts that could result in substantial alteration of drainage patterns leading to erosion, siltation, or flooding are reduced to a less than significant level for the proposed Plan and this alternative through adherence to existing regulations and SCAs.

Creek Protection

None of the alternatives is expected to affect enforcement of the City's Creek Protection Ordinance. Therefore, this potential impact would be less than significant for the proposed Plan and the Trends-Based No Project Alternative.

REDUCED SCOPE ALTERNATIVE

The Reduced Scope Alternative identifies reduced allowable heights for key height areas where community feedback has indicated some interest in lower overall heights. The reduced height scenario thereby reduces the overall development potential in the Planning Area, as described above. These reductions would result in 1,000 fewer households and 900 fewer jobs than the proposed Plan.

Land Use, Planning, Population and Housing

Physical Division of an Established Community

Neither the proposed Station Area Plan nor the Reduced Scope Alternative proposes development that would physically divide any established communities. Both include additional streetscape improvements intended to foster connectivity and mitigate the divisive effects of I-880 and other less well-integrated features of the neighborhood, and both the proposed Plan and this alternative would result in a less than significant impact.

Fundamental Land Use Conflicts

Neither the proposed Plan nor the Reduced Scope Alternative is expected to have a significant impact on existing land uses in the Planning Area. The Reduced Scope Alternative would result in marginally fewer

potential land use conflicts with adjacent uses, as it would result in 12- and six-story buildings on seven sites that are proposed for 25- and 12-story buildings under the proposed Plan. These lower-scale buildings would mesh more closely with the existing scale of the Planning Area. Both the proposed Plan and this alternative would result in a less than significant impact.

Conflicts with Applicable Plans and Regulations

Both the proposed Plan and the Reduced Scope Alternative would be generally consistent with the General Plan's policies and vision for the area, but both propose height limits and character guidelines that conflict with current zoning regulations. The Reduced Scope Alternative would lower maximum building heights even more than the proposed Plan in some parts of the Planning Area. In certain cases, this would result in greater degrees of conflict with current zoning regulations than the proposed Plan, such as in Height Area 9 and the Planning Area's southwest corner. In others, such as Height Area 8, which includes the 14th Street Corridor, it would result in less conflict with current zoning regulations than the proposed Plan. None of these conflicts concern land use designations, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect while also resulting in a physical change to the environment, and all conflicts would be addressed through General Plan and zoning code amendments to be processed concurrently with adoption. These changes to the General Plan and zoning code would also assist the City in meeting other regulatory goals, such as historic preservation and neighborhood compatibility. Both the proposed Plan and this alternative would result in a less than significant impact.

Displacement of Housing or People

The Reduced Scope Alternative is projected to produce 3,900 additional housing units in the Planning Area by 2035, compared to 4,600 projected for the proposed Plan. Because both projections are larger than the number of units anticipated to be lost with new development, and because the City's Ellis Act Ordinance entitles low-income households to relocation assistance should landlords remove their properties from the rental market, the potential impact on households displaced by new development by either the proposed Plan or this alternative is less than significant.

Inducement of Population Growth

The Reduced Scope Alternative is projected to result in lower amounts of population and job growth than the proposed Plan, and so would be less likely than the proposed Plan to induce growth within the Planning Area. However, current regional long-range projections made by the ABAG and ACTC suggest that the region as a whole will experience population growth similar to that projected in the proposed Plan. If, as expected, this alternative results in reduced growth, it may mean that the remaining ABAG and ACTC projected growth is taking place in other areas of Oakland or the Bay Area. Nevertheless, since this alternative retains sustainable allowable zoning and does not actually force outside growth, its impact in this category is less than significant, the same as that of the proposed Plan.

Transportation

The potential for an alternative to result in fewer traffic impacts than the proposed Plan is measured in terms of Level of Service (LOS) at intersections, and roadway and highway segments, based on the City's CEQA thresholds. Performance measures of LOS vary by facility type but regardless of the type of facility, the LOS is based on peak hour traffic volumes and, consistently across all measures of LOS, as

the volume increases the LOS degrades. Therefore, in this less detailed assessment of the potential impacts of the alternatives, PM peak hour traffic volume is a proxy for LOS.

The Reduced Scope Alternative uses height restrictions that result in lower buildings, fewer housing units, and less commercial square footage. This alternative is subject to the same trip reductions for internal capture, transit, walking, bicycling, and retail pass-by as the proposed Plan. By definition, this alternative would generate less traffic since it accommodates less growth, and may result in fewer impacts than the proposed Plan.

Comparative Trip Generation Analysis

Table 4.3-1 compares the net change in land use between the scenarios as well as the estimated PM peak hour trips generated by the increment of change in the land use. The trip generation estimates include adjustments for internal capture, mode share, and pass-by capture for retail uses. Table 4.3-1 compares the difference in PM peak hour trip generation between the Reduced Scope Alternative and the proposed Plan. The Reduced Scope Alternative generates nearly one quarter (22 percent or about 540 trips) fewer trips than the proposed Plan. The alternative achieves this by reducing development nearly proportionately between land uses. Residential and office uses are reduced by 20 percent, while retail, the highest traffic generator, is reduced by 30 percent. The disproportionately higher reduction in retail (and restaurants) may affect the diversity and result in less internal capture than the proposed Plan. When dispersed over the Planning Area, the reduction of 540 trips would be diluted and would not eliminate significant and unavoidable impacts identified for the proposed Plan in Chapter 3.2. However, the alternative's substantially lower traffic generation would reduce the number of mitigable impacts compared to the proposed Plan.

Air Quality

Clean Air Plan Consistency – Control Measures

Since both the Reduced Scope Alternative and the proposed Plan include policies that support the implementation of relevant transportation control measures (TCMs) and land use and local impact measures (LUMs) included in the Bay Area 2010 Clean Air Plan, both would have a less than significant impact in this category.

Clean Air Plan Consistency – Vehicle Trip Growth Compared to Population Growth

The Reduced Scope Alternative would result in a 38 percent increase in PM peak hour vehicle trips and a 128 percent increase in population. The proposed Plan would result in a 49 percent increase in PM peak hour vehicle trips and a 162 percent increase in population. In both cases, population growth is expected to exceed vehicle trip growth, resulting in a less than significant impact. The margin of difference is lower than the proposed Plan, the Enhanced TDM Alterative, and the ACTC Defined No Project Alternative.

Toxic Air Contaminants

For an alternative to be less than significant in this category, it must not expose persons, by siting a new source or a new sensitive receptor, to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter. Analysis of this impact considers potential exposure of residents to sources of TACs as well as

implementation of policies and inclusion of mapping that address toxic air contaminants and overlay zones surrounding the I-880 Freeway.

Both the Reduced Scope Alternative and the proposed Plan would include mapping complementing the City's standard conditions of approval (SCAs) that indicate a less than significant impact at the Plan-level. However, the overall impact of potential exposure to gaseous TACs remains significant and unavoidable. While City of Oakland SCAs B and C will reduce impacts associated with particulate matter and reduce impacts related to gaseous TACs to the extent feasible, there are no known feasible technologies or site planning considerations that have been shown to reduce risks of gaseous TACs.

Odors

Both the proposed Plan and the Reduced Scope Alternative would result in a significant and unavoidable impact regarding odors. As with the other alternatives, this alternative would add new sensitive receptors within the Planning Area. Numerous odor sources already exist in and around the Planning Area, such that the entire Planning Area is potentially subject to odors today. The only available mitigation measure for reducing the potential impact would be to increase the distance between sources and sensitive receptors. Because this would require moving existing sensitive receptors and/or odor sources, this measure is not feasible.

Greenhouse Gases

Total and Per Service Population Emissions

Each alternative was run through the CalEEMod model, making adjustments to land use assumptions and policy modifications as appropriate. Model outputs are shown in Table 4.3-2 (above). The Reduced Scope Alternative would result in less overall development and a smaller service population than the proposed Plan. This scenario results in lower overall emissions based on CalEEmod outputs (though still exceeding the 1,100 $MTCO_2e$ per year threshold), but also in slightly lower per service population rate of GHG emissions when compared to the proposed Plan. The CalEEMod output for this alternative is 3.04 $MTCO_2e$ per service population per year in the modified scenario, slightly less than the proposed Plan output of 3.05 $MTCO_2e$ per service population per year in the modified scenario (**Table 4.3-2**). Projections for both the proposed Plan and this alternative are below the threshold of 4.6 metric tons of CO_2e per service population per year, meaning that both would have a less than significant impact.

Plan Consistency

Both the Reduced Scope Alternative and the proposed Plan would meet per service population emissions thresholds (as described above) and be subject to City policies and SCA, ensuring that new development is consistent with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions, resulting in a less than significant impact for both the proposed Plan and this alternative.

Parks and Recreation

Substantial Physical Deterioration

The Reduced Scope Alternative would not result in any change to the Plan's proposed park land improvements, dedication requirements, or other related policies, and would result in the same park acreage at maximum allowable development as the proposed Plan. However, with a lower future population, the overall park ratio and local-serving park ratio would be slightly better under this

alternative than under the proposed Plan. The area's overall park land ratio would fall from 3.9 to 2.3 acres per 1,000 residents (compared to 2.0 under the proposed Plan), and its ratio of neighborhood-serving park land would fall from 0.7 to 0.3 acres per 1,000 residents (compared to 0.3 under the proposed plan). **Table 4.3-3** (above) summarizes park acreage and ratios for each alternative. However, as a result of existing policies and planned park improvements, the impact of this alternative is less than significant, the same as the proposed Plan.

Construction or Expansion of Recreational Facilities

Under both the Reduced Scope Alternative and the proposed Plan, new park construction would take place on already developed land and would not have adverse effects on the environment. This potential impact is less than significant for both the proposed Plan and this alternative.

Public Services

Fire Services

The Planning Area is well-served by the Oakland Fire Department (OFD); allocation of fire services would be based on citywide development trends, and would follow existing City of Oakland General Plan policies for ensuring fire service provision. All new development is required to adhere to State and City codes, as well as SCAs concerning fire safety.

Compared to the proposed Plan, the Reduced Scope Alternative would result in 1,000 fewer housing units, 2,100 fewer additional residents, 900 fewer jobs and 271,000 fewer square feet of office and retail space. While in general growth would require additional fire services, the reduced amount of growth in this alternative translates into a smaller role for the Planning Area in the City's overall growth. Consequently, the Planning Area would be less of a factor in OFD's planning for fire services than it would under the proposed Plan. In addition, height restrictions included in the Reduced Scope Alternative would limit the height of four proposed 25-story high-rise buildings to 12 stories, thus reducing this challenge for the OFD. This alternative would have a slightly lower impact than the proposed Plan in this category, though both the proposed Plan and Reduced Scope Alternative would result in a less than significant impact.

Police Services

Population growth in the Planning Area would decrease the Police Department's service ratio of officers per 1,000 people unless the growth is accompanied by additional staffing. The Reduced Scope Alternative would result in approximately 2,100 fewer additional residents and 900 fewer new jobs compared to the proposed Plan, and so would have a smaller potential impact on the Police Department's service ratio. At the same time, however, less development would mean a smaller amount of additional revenue to pay for City services. The Reduced Scope Alternative would include the proposed Plan's policies to enhance safety in the Planning Area by expanding the Ambassador program and making safety-oriented design an important criterion for public space improvements and new building design. Given the fact that police services are allocated at a citywide scale, and that growth in the Planning Area represents a small percentage of overall growth in the city, the proposed Plan and Reduced Scope Alternative would both result in a less than significant impact.

Schools and Other Community Facilities

Six Oakland Unified School District (OUSD) schools serve Planning Area students, and four charter schools are located in the Planning Area. As shown in **Table 4.3-4**, these schools are estimated to have available capacity for 419 additional elementary students and, 546 additional middle school students. There is an existing capacity shortage for 124 high school students. There may be a local shortage of space at the high school and elementary school levels at Plan buildout.

The Reduced Scope Alternative would result in approximately 2,100 fewer additional residents compared to the proposed Plan, resulting in between 267 and 741 new students in the Planning Area (as compared to 336 to 931 new students under the proposed Plan, see **Table 4.3-5**). Broken down by grade level, this could result in a shortage of capacity at the elementary and high school levels under the high forecast, but only at the high school level for the medium or low forecasts. This outcome is the same as under the proposed Plan, though the degree of local space shortage would be less under the Reduced Scope Alternative. At the district scale, there is recognized adequate capacity for OUSD schools to absorb a substantially greater number of students than are currently enrolled. The Reduced Scope Alternative would also result in slightly lower pressure on other community services, while providing the same policy support for new or enhanced services in the Planning Area.

OUSD citywide facilities are estimated to have the capacity to support 43,520 to 69,630 students. If development under the proposed Station Area Plan or Reduced Scope Alternative generates more students than local schools can accommodate, these students should be able to find a place in schools outside the Planning Area. More local students may also be absorbed at Planning Area schools if they use the Open Enrollment priority system to enroll in the local schools. Meanwhile, the Planning Area is well-served by libraries. Considering the above factors, the Reduced Scope Alternative would result in a less than significant impact, the same as the proposed Plan.

Utilities and Service Systems

The Planning Area is urbanized and serviced by utilities and service systems. The Reduced Scope Alternative would result in less development overall than the proposed Plan, and therefore would place less increased demand on utilities and service systems.

Wastewater Treatment Requirements and Facilities

The Reduced Scope Alternative results in less need for increased wastewater treatment and facilities than the proposed Plan. While the impact would be slightly less under this alternative, both the Reduced Scope Alternative and the proposed Plan would result in a less than significant impact.

Stormwater Drainage Facilities

As the same sites would be developed under the Reduced Scope Alternative as under the proposed Plan, the potential impact would be the same. Both the proposed Plan and this alternative would have less than significant impacts.

Water Supply

There would be a lower increase in demand for water services under the Reduced Scope Alternative than under the proposed Plan. While the impact would be slightly less under this alternative, both the Reduced Scope Alternative and the proposed Plan would result in a less than significant impact.

Landfills and State Waste Diversion Requirements

As described in Section 3.7, landfills serving the City of Oakland together have substantial capacity through the planning horizon. Therefore, it is expected that development under the Reduced Scope Alternative would be served by a landfill with sufficient permitted capacity to accommodate future solid waste disposal needs. It would not require or result in construction of landfill facilities or expansion of existing facilities, and could thus avoid the significant environmental effects associated with those activities.

Further, the Reduced Scope Alternative would not impede the ability of the City to meet the waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. All new development projects would be subject to SCA 36, *Waste Reduction and Recycling*, which requires the preparation of an Operational Diversion Plan to identify how projects would comply with the City's Recycling Space Allocation Ordinance (Chapter 17.118 OMC). Therefore, the Reduced Scope Alternative, as with the proposed Plan, would have a less than significant impact on solid waste services and landfill capacity.

Energy Standards and Provision

As with the proposed Plan, projects under the Reduced Scope Alternative would comply with all standards of Title 24 of the California Code of Regulations, which requires construction projects to incorporate energy-conserving design measures into projects. Further, under CALGreen, which the City has adopted, a green building should achieve at least a 15-percent reduction in energy usage when compared to Title 24. Given this regulatory context, this impact is less than significant for the Reduced Scope Alternative, the same as the proposed Plan.

Cultural and Historic Resources

Historic Resources

The Planning Area contains 187 properties that appear to meet the City of Oakland's thresholds of significance for historic resources. Since the Reduced Scope Alternative would result in development on all of the same sites as the proposed Plan and include the same mitigating policies, this alternative would have the same potential direct impacts on historic resources as the proposed Plan. Existing SCAs and regulations protecting historical resources would mitigate any potential impact of *overall* redevelopment in the Planning Area, but will not be able to reduce the potential impact of demolition of OUSD or County property to a level that is less than significant. Actual development under the Reduced Scope Alternative is projected to occur in a lower-height, lower-density format than the proposed Plan on eight of the sites, but this would not alter the potential for direct impacts. The impact is considered significant and unavoidable for the proposed Plan and this alternative.

Archaeological Resources

The Planning Area includes six recorded archaeological resources and is considered to have a high potential for having additional unrecorded Native American resources. Thus, additional discoveries of archeological or Native American resources may be likely. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCAs, make these potential impacts less than significant for the Reduced Scope Alternative, the same as the proposed Plan.

Human Remains

There is potential for construction activities from new development to impact human remains in the Planning Area. If human remains of Native American origin are discovered during project construction, the developer and/or City staff would be required to comply with State laws relating to the disposition of Native American burials, as well as follow the City of Oakland's SCA 53, *Human Remains,* making this potential impact less than significant for this alternative, the same as the proposed Plan.

Paleontological Resources

The geological units underlying the Planning Area are considered to have a low to moderate paleontological sensitivity. It is possible that fossils could be discovered during excavation facilitated by development. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCA, make these potential impacts less than significant for the Reduced Scope Alternative, the same as the proposed Plan.

Aesthetics

Scenic Vistas

The Planning Area contains notable scenic vistas along Lake Merritt and the Lake Merritt Channel, over Lake Merritt toward the downtown skyline and the Oakland Hills, and toward historic structures such as Kaiser Auditorium. The Reduced Scope Alternative would result in lower-scale buildings than the proposed Plan on eight opportunity sites, including sites 6 and 44 where tower heights would be reduced from 25 to 12 stories. Site 6 is located directly across 13th Street from the Main Post Office and across Alice Street from the Hotel Oakland. Site 44, at Lake Merritt Boulevard and East 12th Street, is directly adjacent to the park land and new boulevard fronting Lake Merritt. This alternative would share all of the proposed Plan's policies regarding height and massing controls, and lower buildings on these sites would produce a smaller potential impact on scenic views than the proposed Plan. Overall, the impact is less than significant for the proposed Plan and this alternative.

Visual Character and Quality

Parts of the Planning Area have distinctive visual character and qualities, in particular the Chinatown Commercial District and the 7th Street/Harrison Square Residential District, as well as other areas significant for their historical value. Compared to the proposed Plan, the Reduced Scope Alternative would result in lower height limits in certain parts of the Planning Area and lower-scale buildings on eight opportunity sites. Maximum heights would be reduced from 400 to 275 feet in parts of Upper Chinatown, and from 275 to 175 feet in parts of the 14th Street Corridor and the Planning Area's southwest corner. Limits that reduce building heights from 25 to 12 stories on sites 6 and 31 may be more consistent and supportive of the visual characters in their respective neighborhoods. Proposed design guidelines supportive of preserving visual quality and existing City General Plan policies and regulations would ensure this impact is less than significant for this alternative, the same as that of the proposed Plan.

Light and Glare

Development in the Planning Area has the potential to add light and glare, but this impact is less than significant given the existing urbanized character of the Planning Area and the effects of existing regulations governing light. The Reduced Scope Alternative would result in lower height limits in certain areas and lower-scale buildings on certain opportunity sites than the proposed Plan. Development

resulting from this alternative would still be subject to existing regulations, and would thus have a less than significant impact, the same as the proposed Plan.

Shadows on Public or Quasi-Public Spaces

Both the proposed Plan and the Reduced Scope Alternative propose new regulatory height areas that would reduce building height and establish lower base heights in much of the planning area, including on key blocks adjacent to neighborhood parks. They would also establish setbacks along the Lake Merritt Park and Channel Park. The Reduced Scope Alternative, however, proposes lower maximum height limits in some height areas than the proposed Plan. Specifically, it would lower the maximum height of a portion of Height Area 4 that lies in the Eastlake Gateway Plan District. There, lower building heights on sites 43 and 44 could help minimize shadows on nearby Peralta Park. With implementation of proposed height areas and existing design review procedures, the potential for new development to cast shadow that substantially impairs the beneficial use of public open spaces is less than significant for the Reduced Scope Alternative, the same as the proposed Plan.

Exception to Existing Policies or Regulations

The Reduced Scope Alternative would lower maximum building heights in portions of the Planning Area and so would improve the effectiveness of regulations aiming to ensure adequate light. Neither alternative would require an exception (variance) to General Plan, Planning Code, or Uniform Building Code policies or regulations, such that the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses. The impact would be less than significant for the proposed Plan and this alternative.

Noise

Construction Noise

Construction projects could expose residential uses to noise that would exceed General Plan standard of 80 and 85 dBA for short-term construction noise at receiving residential uses and commercial or industrial uses, respectively, for some distance around construction sites. The Reduced Scope Alternative is projected to result in lower buildings at some sites and a smaller amount of overall development. This should be expected to translate to shorter construction periods in some locations, and thus less potential impact compared to the proposed Plan. The existing City of Oakland SCA would apply to all alternatives, limiting construction hours, requiring a noise reduction program including the use of best available control techniques on machinery, requiring that stationary noise sources are located as far from adjacent receptors as possible, and providing strict requirements for the use of impact tools such as jack hammers. Adherence to these requirements reduces this potential impact to a level that is less than significant for both the Reduced Scope Alternative and the proposed Plan.

Operational Noise

The Reduced Scope Alternative is projected to result in somewhat less intensive development than the proposed Plan, which could translate into comparatively less noise from mechanical equipment. Neither alternative is expected to result in new land uses that would generate substantial noise, such as automotive or industrial uses, and in some cases may result in the replacement of such uses. New buildings would result in noise from mechanical equipment, but this equipment would be standardized for noise reduction and is not expected to exceed Noise Ordinance thresholds. In addition, enforcement of the City's SCA 32,

Operational Noise, would reduce any future operational noise impact to less than significant for both the Reduced Scope Alternative and the proposed Plan.

Increase in Ambient Noise

New development is expected to affect the ambient noise environment by generating additional traffic, and by adding new sources of operational noise such as mechanical equipment. The Reduced Scope Alternative would result in a lower level of development overall than the proposed Plan and therefore would generate lower amounts of additional traffic and traffic-related noise increases. Mechanical noise from new buildings is expected to be emitted at a considerable distance from the ground and to attenuate before reaching the sidewalk. The impact would be less than significant for both the Reduced Scope Alternative and the proposed Plan.

Interior Noise

To achieve California Noise Insulation Standards, many new buildings with residential uses will need to achieve substantial noise reduction from exterior noise levels. The City's SCA 31 mandates incorporation of noise reduction measures into project design to achieve an acceptable interior noise level for residential uses. The Reduced Scope Alternative would result in less new development than the proposed Plan subject to interior noise standards. With enforcement of existing City SCAs, potential impacts related to interior noise are reduced to less than significant for the Reduced Scope Alternative, the same as the proposed Plan.

Community Noise Environment

The Reduced Scope Alternative would result in a lower overall level of development and less traffic than the proposed Plan, meaning the introduction of comparatively lower levels of traffic-related noise and fewer sensitive receptors. The City of Oakland's General Plan and Noise Ordinance provide a strong policy framework for minimizing noise impacts and SCA 31 requires that noise reduction in the form of sound-rated assemblies (windows, exterior doors, and walls) and/or other measures is incorporated into project design. Other SCA described in the Regulatory Setting section ensure that noise and vibration from construction and operations are minimized. Implementation of these policies, standards, and conditions of approval would ensure that the noise environment in the Planning Area does not increase in a manner that worsens existing land use compatibility or exposes noise-sensitive land uses to "unacceptable" noise levels. This will be true in the 2035 buildout year and at any time during the planning period. Any potential noise impacts are thus reduced to a less than significant level for the Reduced Scope Alternative, the same as the proposed Plan.

Workplace Noise

The Reduced Scope Alternative would result in less new development subject to workplace noise standards than the proposed Plan. Neither the Reduced Scope Alternative nor the proposed Plan is expected to result in new permanent land uses involving noise-generating activities that would significantly impact interior operational noise levels in workplaces. However, construction activities could potentially expose workers to excessive noise exposure. By enforcing existing City SCAs and federal, State, and local regulations including Cal-OSHA standards, potential impacts related to occupational noise would be reduced to less than significant for the Reduced Scope Alternative, the same as the proposed Plan.

Groundborne Vibration

The only permanent source of vibration in the Planning Area is the Union Pacific/Amtrak rail line along the southern edge of a portion of the Planning Area. Currently, this land is occupied by light industrial and parking uses. If development of vibration-sensitive use does occur here, SCA 38 would require acoustical analysis and vibration reduction strategies as needed. Construction–related groundborne vibration would be temporary in nature and related noise impacts would be short-term. The Reduced Scope Alternative would result in fewer new residents and less new construction than the proposed Plan. With adherence to SCA 38, limiting construction hours, and SCA 39, requiring site-specific noise attenuation measures for all projects involving pile driving or other extreme noise generation, this alternative would result in a less than significant impact for the Reduced Scope Alternative, the same as the proposed Plan.

Biological Resources

Special Status Species

All of the alternatives, including the Reduced Scope Alternative and the proposed Plan, would be subject to all existing regulations that protect special status species. These include SCA 44, which limits the impact of tree removal on nesting birds, and other SCAs that ensure Low Impact Development (LID) that will improve water quality in Lake Merritt over the long term. There have been 12 special status species identified as having moderate or high potential to occur, or are known to occur, in or adjacent to the Planning Area, with another nine considered to have a low potential to occur. Both the Reduced Scope Alternative and the proposed Plan would contribute to habitat improvements along Lake Merritt Channel by supporting Measure DD-funded work, by requiring a setback for new development along the Channel, and extending park land south of I-880. Given proper adherence to existing regulations, impacts would be less than significant for this proposed Plan and this alternative.

Riparian Habitat

Though no riparian habitat or sensitive natural community currently exists in the Planning Area, planned improvements along Lake Merritt Channel will add new vegetation and potentially create riparian habitat. Both the Reduced Scope Alternative and the proposed Plan include proposals for additional future park development along the Channel that would also feature new vegetation. Given adherence to existing City of Oakland SCAs that ensure that riparian corridors are protected as new development takes place, impacts on riparian habitat would be less than significant for both the Reduced Scope Alternative and the proposed Plan.

Wetlands

Currently, only a small section of Lake Merritt Channel and its banks is classified as wetland eligible for federal protection. Measure DD improvements include restoration in this area that would create additional areas of open water and marsh, potentially creating additional wetlands. Any project in the Planning Area that would impact these wetlands would be subject to Clean Water Act provisions. Thus, potential impacts would be less than significant for all the proposed Plan and the Reduced Scope Alternative.

Wildlife Movement and Wildlife Nursery Sites

Several migratory bird species have been observed using the Lake Merritt Channel corridor, and migratory fish may also use the Channel. In the short term, construction impacts that could potentially

disturb native or migratory animals will be less than significant given compliance with all Clean Water Act regulations and City of Oakland SCAs.

Increased recreational use of this corridor by boaters could potentially impact the use of the Channel by water birds. To minimize this potential impact to a less than significant level, both the Reduced Scope Alternative and the proposed Plan would adopt a policy to restrict small-boat use of Lake Merritt Channel to the non-wintering period of April to September (consistent with Measure DD Mitigation Measures), and to extend this policy to the section of the Channel south of 7th Street in tandem with the extension of park land between I-880 and the Estuary. Both the Reduced Scope Alternative and the proposed Plan would result in less than significant impacts.

Development under both the Reduced Scope Alternative and the proposed Plan is expected to include many new tall buildings and additional lighting, both of which could result in additional impacts on migrating birds. Both scenarios would include new base and building height limits, and upper story setback requirements, though the Reduced Scope Alternative would lower allowable building heights in some parts of the Planning Area. The Reduced Scope Alternative features lower maximum building heights in certain parts of the Planning Area, with the 400-foot limit in Height Area 8 shifted down to 275 feet, and the 275-foot limit in Height Area 7 and the portion of Height Area 4 in Eastlake Gateway dropped to 175 feet. The anticipated height of new buildings on certain opportunity sites is also lower. Most notably, the Eastlake Gateway area is directly adjacent to Lake Merritt and Lake Merritt Channel, the most important resources for wildlife movement in the Planning Area. Lower expected building heights here would result in a less than significant impact on wildlife movement along the Channel, the same as that of the proposed Plan.

Both the Reduced Scope Alternative and the proposed Plan include Measure DD-funded improvements, which will result in extensive changes to existing vegetation and are relevant to nesting habitat for bird species in the Planning Area. These improvements have undergone environmental review and will comply with all SCAs relating to tree removal and protection, including SCA 44 (Tree Removal during Breeding Season). Adherence to these regulations will reduce potential impact of new development in the Planning Area on suitable nesting habitat to less than significant levels for the Reduced Scope Alternative and the proposed Plan.

Tree Protection Ordinance

Measure DD-funded improvements along Lake Merritt and the Channel will involve extensive changes. The design of the Measure DD implementation project was significantly shaped by the need to adhere to the City's Tree Protection Ordinance. Elsewhere in the Planning Area, new development activities are expected to occur on parcels with very few trees. As under the proposed Plan, development under the Reduced Scope Alternative would adhere to the Tree Protection Ordinance, making this impact less than significant.

Creek Protection Ordinance

All properties in the Planning Area are subject to the Creek Protection Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater. Development along Lake Merritt Channel requires a Creek Protection Permit. Nearly all of this land is public park land and much of it is subject to Measure DD-funded improvements, which follow all Ordinance requirements. There is a small amount of land designated for urban uses abutting the Channel, where any development would be subject

to all relevant Ordinance requirements. None of the alternatives would differ from the proposed Plan in this regard, and the impact would remain less than significant for the proposed Plan and the Reduced Scope Alternative.

Geology and Soils

Seismic Hazards

The Planning Area falls within zones of the most severe shaking intensity in the Bay Area. Intense ground shaking has the potential to damage buildings and put people at risk. A substantial portion of the Planning Area along Lake Merritt Channel is also within a liquefaction hazard zone, as identified by the California Geological Society. Liquefaction could damage structures and place people at risk through processes of differential settlement or lateral spreading.

The Reduced Scope Alternative would result in a reduced overall amount of new development. It would put fewer buildings and people at risk of seismic hazards than the proposed Plan, so the extent of potential exposure would be less. Under both alternatives, new development would be required to complete soil reports and follow the California Building Code's current seismic standards. Additionally, new development within the Seismic Hazard Zone would also have to complete a geotechnical study that analyzes liquefaction potential and includes a detailed engineering analysis. Adherence to these regulations would reduce the potential impact of seismic hazards to less than significant for the proposed Plan and this alternative.

Expansive Soil

The Planning Area is likely to have portions underlain with Bay Mud and artificial fills, soils which have the potential to shrink and swell. The placement of new buildings may compress such expansive soils, potentially causing irregular settlement and leading to structural damage. The Reduced Scope Alternative would result in less overall development and therefore would put fewer buildings and people at potential risk due to expansive soil than the proposed Plan. Adherence to the Uniform Building Code and to City of Oakland SCA, in particular SCA 58 (Soils Report) and SCA 60 (Geotechnical Study, within the Seismic Hazard Zone) make this potential impact less than significant for both the proposed Plan and this alternative.

Wells, Landfills and Other Soil Irregularities

The Planning Area could contain old wells, pits, mounds, tank vaults, or unused sewer lines, some of which may be on potential development sites. Due to its comparatively lower degree of development, the Reduced Scope Alternative would put fewer buildings and people at risk due to such hazards than the proposed Plan. Following the City's Grading Permit requirements, such soil irregularities would need to be removed or filled prior to permitting, reducing this potential impact to less than significant for the proposed Plan and the Reduced Scope Alternative.

Hazards and Hazardous Materials

Hazardous Materials Use and Transport

Future commercial land uses are likely to involve the use, storage, transportation, and disposal of hazardous materials such as paints, solvents, cleaning agents, and other chemicals, which could create a potential hazard for area residents, workers and visitors. However, with implementation of existing

regulations administered by the City's Fire Prevention Bureau, including the requirement for a Hazardous Materials Business Plan as reinforced by SCA 74, this potential hazard becomes less than significant for the proposed Plan and the Reduced Scope Alternative.

Hazardous Materials Upset and Accident Conditions

Accidental release during construction projects and other activities could expose people and the environment to hazardous materials. This potential hazard is less than significant for the proposed Plan and this alternative given federal and state laws governing the use, management, and disposal of hazardous materials, and SCA 35, which requires the use of Best Management Practices.

Excavation and site work as part of new development could result in disturbance and exposure of known or unknown contaminants. The City of Oakland's SCAs include a requirement for all construction sites to take all appropriate measures to protect human health and the environment if potential contamination is found. On sites that have been identified in City records for hazardous materials, additional, strict SCAs apply, reducing this potential impact to less than significant for the proposed Plan and this alternative.

Demolition of existing structures, especially older structures that may contain hazardous building materials, could expose construction workers, the public, or the environment to these materials. This potential hazard is reduced to less than significant for the proposed Plan and this alternative by adherence to federal and state laws, in particular OSHA and Cal-OSHA, as well as SCAs that relate specifically to projects that include the redevelopment or reuse of historically industrial or commercial buildings and to sites that are identified on the Cortese list.

Hazardous Materials near Sensitive Receptors

The Planning Area is a dense, urbanized environment in which contaminated sites may be in the vicinity of substantial numbers of housing units, schools and parks. The potential impacts of hazardous materials on sensitive receptors is less than significant for the proposed Plan and this alternative through compliance with all existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor.

Hazardous Materials near Schools

The Planning Area contains eight public or charter schools enrolling nearly 2,000 students. Laney College serves another 13,000 post-secondary students. All schools are within one quarter-mile of one or more contaminated sites. Because projects are required to comply with existing regulations, the potential impacts of hazardous materials on schools and sensitive receptors are less than significant for all alternatives, including the Reduced Scope Alternative. Regulations include in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor, as well as requirements reinforced by SCA 74. As a result, the potential impacts of hazardous materials on schools and sensitive receptors are less than significant for the proposed Plan and the ACTC Defined No Project Alternative.

Development on Contaminated Sites

The Planning Area includes 16 sites that are on the State's "Cortese list," including three clean-up sites under Department of Toxic Substances Control authority and 13 under authority of the Regional Water

Quality Control Board. Five of these clean-up sites are identified under the Station Area Plan and Reduced Scope Alternative as "opportunity sites," meaning development is considered likely. Any development of these sites will be required to adhere to all clean-up requirements as stipulated by the State agency with jurisdiction, and will also be required to comply with all SCAs that apply specifically to sites with known contamination. Enforcement of all requirements will reduce this potential impact to a less than significant level for the proposed Plan and the Reduced Scope Alternative.

Emergency Access

Most of the Planning Area uses a traditional street grid pattern, while the central portion uses large "super blocks" around Laney College, the Kaiser Auditorium, and the Channel. The same as the proposed Plan, the Reduced Scope Alternative would not vacate any street or otherwise result in the existence of streets exceeding 600 feet in length that have fewer than two emergency response routes, resulting in a less than significant impact for the proposed Plan and this alternative.

Emergency Response and Evacuation

Both the proposed Plan and the Reduced Scope Alternative propose significant streetscape improvements, including lane reductions for vehicles. These will not result in any change with regard to access by emergency vehicles, and accessibility for pedestrians and cyclists would be enhanced. The potential impact on emergency access and emergency response would be less than significant for the proposed Plan and this alternative.

Hydrology and Water Quality

Water Quality Standards and Waste Discharge Requirements

Both construction and permanent development patterns have the potential to affect water quality. On sites of one acre or more, new construction projects will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) under the General Construction Permit, and all construction projects will be subject to City of Oakland SCAs. Incorporation of Best Management Practices (BMPs) as required will lessen the potential impacts to water quality resulting from erosion and siltation caused by construction to less than significant for both the Reduced Scope Alternative and the proposed Plan.

Development under both the Reduced Scope Alternative and the proposed Plan would occur on sites that are already paved or developed, meaning that there is not expected to be an increase in the amount of impervious surface in the Planning Area, and no consequent increase in stormwater runoff—a major source of water quality issues—over the life of new projects. Both scenarios include streetscape improvements and policies regarding stormwater runoff. Additionally, the City requires that Low Impact Development (LID) techniques be used, making this potential impact less than significant for the both the Reduced Scope Alternative and the proposed Plan.

Groundwater Recharge

Neither the Reduced Scope Alternative nor the proposed Plan is expected to result in increased amounts of impervious surface area in the Planning Area. The potential impact on groundwater recharge is less than significant for both the Reduced Scope Alternative and the proposed Plan.

Erosion or Siltation

Potential impacts of development on erosion or siltation are possible under both the Reduced Scope Alternative and the proposed Plan. However, these effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations. The potential impact would remain less than significant for both the Reduced Scope Alternative and the proposed Plan.

Substantial Flooding

Development from both the Reduced Scope Alternative and the proposed Plan has the potential to increase runoff, which could result in substantial flooding hazards on- or off-site. However, these potential effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations, reducing the potential impact less than significant for both the Reduced Scope Alternative and the proposed Plan.

Stormwater Drainage System

Neither the Reduced Scope Alternative nor the proposed Plan is expected to increase the amount of runoff due to both the highly-urbanized existing context and the City's Low Impact Development policies. Impacts on the storm drainage system would be less than significant for both the Reduced Scope Alternative and the proposed Plan.

Runoff and Other Potential Sources of Water Quality Degradation

Intensification of the urban environment has the potential to result in increased runoff, which could be the source of additional polluted runoff. However, new development will take place on already urbanized sites and will be required to adhere to all existing regulations and SCAs, making this potential impact less than significant for both the Reduced Scope Alternative and the proposed Plan.

Housing and Structures in a Flood Hazard Area

The Planning Area has a small 100-year flood zone that is almost entirely confined to park land along Lake Merritt and Lake Merritt Channel. Existing building code requirements, SCAs, and the Creek Protection Ordinance would apply to all new development. Both the Reduced Scope Alternative and the proposed Plan include a requirement for a 100-foot setback from the Channel, and existing regulations concerning building in a flood zone and requirements for a Creek Protection permit make the potential for new housing or structures to impede or redirect flood flow. The potential impact is less than significant for both the Reduced Scope Alternative and the proposed Plan.

Exposure to Flooding, and Sea Level Rise

Exposure to Flooding

Both the Reduced Scope Alternative and the proposed Plan include a requirement for a 100-foot setback from the Channel. Additionally, existing regulations concerning building in a flood zone and requirements for a Creek Protection permit would apply to all new development under these alternatives. Adherence to all building code requirements and SCA as well as the Creek Protection Ordinance will make the potential for the exposure of people or structures to a substantial risk of loss, injury, or death involving flooding less than significant for the Reduced Scope Alternative and the proposed Plan.

Sea Level Rise

Portions of the Planning Area along Lake Merritt and Lake Merritt Channel, as well as adjacent land at the Peralta Community College District Administration site, could be at risk of potential sea level rise. None of this land is expected to be developed with housing or other uses that would place people at risk. Current potential sea level rise maps do not account for existing flood protection structures. Portions of the Planning Area potentially exposed to 16-inch and 55-inch sea level rise are being studied as part of BCDC's *Adapting to Rising Tides* project. The project will further identify potential adaptation strategies to mitigate the effects of sea level rise. Adaptation strategies will likely require the involvement of regional, state and federal partners.

Furthermore, implicit in the discussion of global warming, greenhouse gas emissions and sea level rise is that it extends beyond specific development projects, a specific plan area, or, indeed, an entire City. The adopted Bay Plan and Oakland's Draft Energy and Climate Action Plan (ECAP) specifically recognize this and include actions to participate in the preparation of a regional climate adaption strategy. It is reasonable to expect that sea level rise projections will become incorporated into flood hazard mapping, and that existing policies and regulations that provide protection from flooding will also apply to areas where potential sea level rise will occur. The potential impact is less than significant for both the Reduced Scope Alternative and the proposed Plan.

Tsunami, Seiche, or Mudflow

A small portion of the Planning Area along Lake Merritt Channel is within the tsunami runup zone. This zone is mapped for emergency response planning purposes and does not dictate any restriction in land use. The Planning Area is not susceptible to seiche or mudflow, making this impact less than significant for both the Reduced Scope Alternative and the proposed Plan.

Drainage Pattern

None of the alternatives is expected to directly alter the course or increase the rate or amount of flow of a creek. Potential indirect impacts that could result in substantial alteration of drainage patterns leading to erosion, siltation, or flooding are reduced to less than significant through adherence to existing regulations and SCAs. This potential impact would be the same under each of the alternatives as under the proposed Plan.

Creek Protection

None of the alternatives is expected to affect enforcement of the City's Creek Protection Ordinance. This potential impact would be less than significant for the Reduced Scope Alternative and the proposed Plan.

ENHANCED TRANSPORTATION DEMAND MANAGEMENT (TDM) ALTERNATIVE

The Enhanced TDM Alternative focuses on the addition of a range of transportation demand management (TDM) measures and parking management strategies that could be incorporated into the Plan, and that are expected to have some level of specific trip-reduction implications. However, TDM and parking management measures and strategies in of themselves have little ability to substantially reduce traffic. The measures and strategies described support and strengthen the high non-auto mode share inherent to the Planning Area due to its robust transit system, the cost and scarcity of its urban parking system, and its walkable environment. The policies in this alternative are in addition to improved pedestrian, bicycle,

transit access, and TDM policies identified in the proposed Plan or augment proposed Plan policies. As a policy-focused alternative, it assumes the same amount of overall growth as the proposed Plan.

Land Use, Planning, Population and Housing

Physical Division of an Established Community

Neither the proposed Station Area Plan nor the TDM Alternative proposes development that would physically divide any established communities. Both include additional streetscape improvements intended to foster connectivity and mitigate the divisive effects of I-880 and other less well-integrated features of the neighborhood, and both the proposed Plan and this alternative result in a less than significant potential impact.

Fundamental Land Use Conflicts

Neither the proposed Plan nor the Enhanced TDM Alternative is expected to have a significant impact on existing land uses in the Planning Area. New development under either alternative would occur within the framework of existing and proposed land use regulations emphasizing compatibility with neighborhood character. They would work to diminish the divisive effects of I-880, and propose improvements to the streetscape environment in order to enhance neighborhood cohesion. Both the proposed Plan and this alternative result in a less than significant potential impact.

Conflicts with Applicable Plans and Regulations

Both the proposed Plan and the Enhanced TDM Alternative would be generally consistent with the General Plan's policies and vision for the area, but both propose height limits and character guidelines that conflict with current zoning regulations. The Enhanced TDM Alternative includes additional new parking requirements that the proposed Plan does not. This means that it would present more of a conflict with existing zoning regulations than the proposed Plan, but it would also help the City to achieve more of the broader goals established in the General Plan. None of these conflicts concern land use designations, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect while also resulting in a physical change to the environment, and all conflicts will be addressed through General Plan and zoning code amendments to be processed concurrently with adoption. Any zoning changes resulting from either the Enhanced TDM Alternative or the proposed Plan would be consistent with existing General Plan goals and policies. Both the proposed Plan and this alternative result in a less than significant potential impact.

Displacement of Housing or People

Both the Enhanced TDM Alternative and the proposed Plan are projected to result in 4,600 new housing units in the Planning Area by 2035. Because the projected amount of new housing is larger than the projected amount lost with new development, and because the City's Ellis Act Ordinance entitles low-income households to relocation assistance should landlords remove their properties from the rental market, the potential impact on households displaced by new development by either the proposed Plan or this alternative is less than significant.

Inducement of Population Growth

The Enhanced TDM Alternative is projected to result in the same amount of growth as the proposed Plan, though additional TDM policies may lessen the traffic impact from that growth on area roadways. The

relatively greater traffic capacity resulting from the Enhanced TDM Alternative could potentially induce growth elsewhere outside of the Planning Area. However, the impact would still be less than significant for this alternative, the same as that of the proposed Plan.

Transportation

The potential for an alternative to result in fewer traffic impacts than the proposed Plan is measured in terms of Level of Service (LOS) at intersections, and roadway and highway segments, based on the City's CEQA thresholds. Performance measures of LOS vary by facility type but regardless of the type of facility, the LOS is based on peak hour traffic volumes and, consistently across all measures of LOS, as the volume increases the LOS degrades. Therefore, in this less detailed assessment of the potential impacts of the alternatives, PM peak hour traffic volume is a proxy for LOS.

Effects on Mode Share

The Enhanced TDM Alternative policies, individually, have a modest potential for reducing peak hour automobile trip generation . **Table 4.2-2** presents the estimated effect each policy has on mode of travel. Adopting the development standards such as eliminating minimum parking requirements, establishing maximum parking ratios, etc. is estimated to increase the non-auto mode share by about five to 30 percent of the travel made by the households affected. Parking management can reduce trip generation by about three percent or more, and more robust TDM strategies can reduce "home-based-work" trips by up to 26 percent (about a 13-percent reduction in all trip purposes generated by employment uses).

Table 4.3-5 breaks down projected share for each travel mode, by land use type, comparing the Enhanced TDM Altertnative to the proposed Plan. Collectively, the Enhanced TDM Alternative policies would have a moderate effect on reducing peak hour traffic—by about four percent. Because it is based on the same development program as the proposed Plan, this alternative relies only on implementation of TDM measures to generate fewer traffic impacts than the proposed Plan.

Table 4.3-5: Enhanced TDM Alternative – Resulting Mode Share

	Residential	*Office*	*Retail*
Vehicle Driver	31%	43%	48%
Vehicle Passenger	10%	12%	12%
Transit	30%	27%	14%
Bicycle	1%	4%	4%
Walk	23%	12%	20%
Other	4%	2%	2%
Total	**100%**	**100%**	**100%**
Total Non-Auto Mode Share in Enhanced TDM Alternative	**59%**	**45%**	**40%**
Total Non-Auto Mode Share in Proposed Plan	**56%**	**43%**	**40%**
Difference	3%	2%	-

Comparative Trip Generation Analysis

The Enhanced TDM Alternative generates about four percent fewer trips than the proposed Plan. Despite the implementation of the additional TDM measures (using conservative estimations of the measure's effectiveness), this alternative results in low to modest reductions compared to the proposed Plan (which also has relatively strong TDM policies), and will not eliminate significant and unavoidable impacts identified for the proposed Plan in Chapter 3.2. However, the Enhanced TDM Alternative has the potential for substantially reducing trips in both peak hours (though this alternative does not generate the least amount of traffic due to its larger overall buildout). As the parking management and TDM programs mature and are refined over time through monitoring, they would also be expected to become more effective. Because of the modest effect of the TDM policies and the inability of the alternative to avoid significant and unavoidable impacts, the Enhanced TDM Alternative results in the same impacts as the proposed Plan.

Air Quality

Clean Air Plan Consistency – Control Measures

Since both the Enhanced TDM Alternative and the proposed Plan include policies that support implementation of policies that serve to implement relevant transportation control measures (TCMs) and land use and local impact measures (LUMs) included in the Bay Area 2010 Clean Air Plan, both would have a less than significant impact in this category. However, because the Enhanced TDM Alternative includes additional TDM measures, it would be slightly more effective than the proposed Plan at achieving the TCMs outlined in the Clean Air Plan.

Clean Air Plan Consistency – Vehicle Trip Growth Compared to Population Growth

The Enhanced TDM Alternative would result in a 47 percent increase in PM peak hour vehicle trips and a 162 percent increase in population. The proposed Plan would result in a 49 percent increase in PM peak hour vehicle trips and a 162 percent increase in population. In both cases, population growth is expected to exceed vehicle trip growth, resulting in a less than significant impact. The margin of difference is slightly greater than the proposed Plan, but less than the ACTC Defined No Project.

Toxic Air Contaminants

For an alternative to be less than significant in this category, it must not expose persons, by siting a new source or a new sensitive receptor, to substantial levels of Toxic Air Contaminants (TACs) resulting in (a) a cancer risk level greater than 10 in one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter. Analysis of this impact considers potential exposure of residents to sources of TACs as well as implementation of policies and inclusion of mapping that address toxic air contaminants and overlay zones surrounding the I-880 Freeway.

Both the Enhanced TDM Alternative and the proposed Plan would include mapping complementing the City's standard conditions of approval (SCAs) that indicate a less than significant impact at the Plan-level. However, the overall impact of potential exposure to gaseous TACs remains significant and unavoidable. While City of Oakland SCAs B and C will reduce impacts associated with particulate matter and reduce impacts related to gaseous TACs to the extent feasible, there are no known feasible technologies or site planning considerations that have been shown to reduce risks of gaseous TACs.

Odors

Both the proposed Plan and the Enhanced TBD Alternative would result in a significant and unavoidable impact regarding odors. As with the other alternatives, this alternative would add new sensitive receptors within the Planning Area. Numerous odor sources already exist in and around the Planning Area, such that the entire Planning Area is potentially subject to odors today. The only available mitigation measure for reducing the potential impact would be to increase the distance between sources and sensitive receptors. Because this would require moving existing sensitive receptors and/or odor sources, this measure is not feasible.

Greenhouse Gases

Total and Per Service Population Emissions

Each alternative was run through the CalEEMod model, making adjustments to land use assumptions and policy modifications as appropriate. Model outputs are shown in **Table 4.3-2** (above). Modeling for the Enhanced TDM Alternative included additional modifications tied to overall parking reduction, requiring unbundling and additional TDM measures. This scenario results in a modified per service population emissions output of 3.03 $MTCO_2e$ per service population per year, compared to 3.05 for the proposed Plan (**Table 4.3-2**). Though it still exceeds the 1,100 $MTCO_2e$ per year threshold for this impact, this alternative has the lowest modified per service population emissions of all of the alternatives. Outputs for both the proposed Plan and this alternative are below the threshold of 4.6 metric tons of CO_2e per service population per year, meaning that both would have a less than significant impact.

Plan Consistency

Both the Enhanced TDM Alternative and the proposed Plan would meet per service population emissions thresholds (as described above) and be subject to City policies and SCAs, ensuring that new development is consistent with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions, resulting in a less than significant impact for both the proposed Plan and this alternative.

Parks and Recreation

Substantial Physical Deterioration

The Enhanced TDM Alternative would result in the same park acreage at maximum allowable development as the proposed Plan. The area's overall park land ratio would fall from 3.9 to 2.0 acres per 1,000 residents and its ratio of neighborhood-serving park land would decline from 0.7 to 0.3 acres per 1,000. **Table 4.3-3** summarizes park acreage and ratios for each alternative. However, with existing policies and planned park improvements in place, both the proposed Plan and this alternative would result in a less than significant impact. These policies include the existing General Plan and Estuary Policy Plan, which seek to ensure that the City prioritizes future capital investments to meet park needs and complete park links along Lake Merritt Channel. Additionally, the Planning Code contains usable open space requirements to ensure that new residents have access to on-site usable open space. Moreover, both alternatives include proposed park land improvements, dedication requirements, and other related policies that would make both regional and neighborhood parks more accessible to the community.

Construction or Expansion of Recreational Facilities

Under both the Enhanced TDM Alternative and the proposed Plan, new park construction would take place on already developed land and would not have adverse effects on the environment. This potential impact is less than significant for both the proposed Plan and this alternative.

Public Services

Fire Services

The Planning Area is well-served by the Oakland Fire Department (OFD); allocation of fire services will be made based on citywide development trends and following existing City of Oakland General Plan policies for ensuring fire service provision. All new development will be required to adhere to State and City codes and SCAs concerning fire safety. As a result, the potential impact is less than significant for both the proposed Plan and this alternative.

Police Services

The Enhanced TDM Alternative would result in the same number of additional residents and new jobs as the proposed Plan, resulting in the same decrease in the Police Department's service ratio of officers per 1,000 people unless the growth is accompanied by additional staffing. The Enhanced TDM Alternative contains the same policies to enhance safety in the Planning Area as the proposed Plan by expanding the Ambassador program and making safety-oriented design an important criterion for public space improvements and new building design. Given the fact that police services are allocated at a citywide scale, and that growth in the Planning Area represents a small percentage of overall growth in the city, the proposed Plan and Enhanced TDM Alternative would both result in a less than significant impact.

Schools and Other Community Facilities

Six Oakland Unified School District (OUSD) schools serve Planning Area students, and four charter schools are located in the Planning Area. These schools are estimated to have available capacity for 419 additional elementary students and, 546 additional middle school students. There is an existing capacity shortage for 124 high school students.

Maximum allowable development under both the Enhanced TDM Alternative and the Station Area Plan may be expected to result in a low forecast of 336 to a high forecast of 931 new students by 2035. When this additional demand is broken down by grade level, both elementary and high school enrollment would be over capacity under the high forecast. This means that, conservatively, there may be a local shortage of space at the high school and elementary school levels at Plan buildout. Under a medium or low forecast, there would be a capacity shortage only at the high school level.

OUSD facilities are estimated to have the capacity to support 43,520 to 69,630 students. The District's draft 2012 Facilities Master Plan emphasizes making better use of existing space, and improving school-community shared resources. If development generates more students than local schools can accommodate, these students should be able to find a place in schools outside the Planning Area. More local students may also be absorbed at Planning Area schools if they use the Open Enrollment priority system to enroll in the local schools. The Planning Area is well-served by libraries.

Considering the above factors, the Enhanced TDM Alternative would result in a less than significant impact, the same as the proposed Plan.

Utilities and Service Systems

The Planning Area is urbanized and serviced by utilities and service systems. The Enhanced TDM Alternative would have the same amount of development as the Proposed Plan and therefore place the same amount of increased demand on utilities and service systems.

Wastewater Treatment Requirements and Facilities

The Enhanced TDM Alternative results in the same need for increased wastewater treatment and facilities than the proposed Plan. The potential impact is less than significant, the same as the Proposed Plan. Stormwater Drainage Facilities

As the same sites would be developed under the Enhanced TDM Alternative as under the proposed Plan, the potential impact would be the same. Both the proposed Plan and this alternative would have a less than significant impact.

Water Supply

There would be the same increase in demand for water services under the Enhanced TDM Alternative than under the proposed Plan. The potential impact is less than significant, the same as the proposed Plan.

Landfills and State Waste Diversion Requirements

As described in Section 3.7, landfills serving the City of Oakland together have substantial capacity through the planning horizon. Therefore, it is expected that development under the Enhanced TDM Alternative would be served by a landfill with sufficient permitted capacity to accommodate future solid waste disposal needs. It would not require or result in construction of landfill facilities or expansion of existing facilities, and could thus avoid the significant environmental effects associated with those activities.

Further, the Enhanced TDM Alternative would not impede the ability of the City to meet the waste diversion requirements or cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. All new development projects would be subject to SCA 36, *Waste Reduction and Recycling*, which requires the preparation of an Operational Diversion Plan to identify how projects would comply with the City's Recycling Space Allocation Ordinance (Chapter 17.118 OMC). Therefore, the Enhance TDM Alternative, as with the proposed Plan, would have a less than significant impact on solid waste services and landfill capacity.

Energy Standards and Provision

As with the proposed Plan, projects under the Enhanced TDM Alternative would comply with all standards of Title 24 of the California Code of Regulations, which requires construction projects to incorporate energy-conserving design measures into projects. Further, under CALGreen, which the City has adopted, a green building should achieve at least a 15-percent reduction in energy usage when compared to Title 24. Given this regulatory context, this impact is less than significant for the Enhanced TDM Alternative, the same as the proposed Plan.

Cultural and Historic Resources

Historic Resources

The Planning Area contains 187 properties that appear to meet the City of Oakland's thresholds of significance for historic resources. Since the Enhanced TDM Alternative would result in development on all of the same sites as the proposed Plan and include the same mitigating policies, this alternative would have the same potential direct impacts on historic resources as the proposed Plan. Existing SCAs and regulations protecting historical resources would mitigate any potential impact of *overall* redevelopment in the Planning Area, but will not be able to reduce the potential impact of demolition of OUSD or County property to a level that is less than significant. Thus this impact is considered significant and unavoidable for the Enhanced TDM Alternative, the same as the proposed Plan.

Archaeological Resources

The Planning Area includes six recorded archaeological resources and is considered to have a high potential for having additional unrecorded Native American resources. Thus, additional discoveries of archeological or Native American resources may be likely. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCAs, make these potential impacts less than significant for the Enhanced TDM Alternative, the same as the proposed Plan.

Human Remains

There is potential for construction activities from new development under the proposed Plan to impact human remains in the Planning Area. If human remains of Native American origin are discovered during project construction, the developer and/or City staff would be required to comply with State laws relating to the disposition of Native American burials, as well as follow the City of Oakland's SCA 53, *Human Remains,* making this potential impact less than significant for the Enhanced TDM Alternative, the same as the proposed Plan.

Paleontological Resources

The geological units underlying the Planning Area are considered to have a low to moderate paleontological sensitivity. It is possible that fossils could be discovered during excavation facilitated by the development. Implementation of existing State and federal laws, as well as City of Oakland General Plan policies and SCA, make these potential impacts less than significant for the Enhanced TDM Alternative, the same as the proposed Plan.

Aesthetics

Scenic Vistas

The Planning Area contains notable scenic vistas along Lake Merritt and the Lake Merritt Channel, over Lake Merritt toward the downtown skyline and the Oakland Hills, and toward historic structures such as Kaiser Auditorium. The Enhanced TDM Alternative and the proposed Plan would have the same impacts with regard to scenic views. Proposed zoning and height limit amendments would allow increases in building height and mass from existing conditions, but would result in lower maximum allowed building and/or base heights in many parts of the Planning Area. No short-term views would be blocked, and the existing circulation and open space networks would be preserved and enhanced. Furthermore, all new development is subject to policies in both the General Plan and Estuary Policy Plan that are intended to

protect scenic views. The potential impact is less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Visual Character and Quality

Parts of the Planning Area have distinctive visual character and qualities, in particular the Chinatown Commercial District and the 7th Street/Harrison Square Residential District, as well as other areas significant for their historical value. The Enhanced TDM Alternative would likely result in less parking from new development than would the proposed Plan. This could have a positive effect on visual quality on areas where structured parking is not typical, allowing new development to blend more closely with older buildings. While existing discretionary review requirements would ensure that parking developed under any alternative is designed in a context-sensitive fashion, the comparatively reduced amount of parking in the Enhanced TDM Alternative may be an improvement over the proposed Plan. The impact for both the proposed Plan and this alternative is less than significant.

Light and Glare

The Enhanced TDM Alternative is intended to reduce traffic on Planning Area streets relative to the proposed Plan, lessening one major source of increased light and glare. However, given the Planning Area's already thoroughly urbanized character, the expected difference would be minimal. Additionally, given existing regulations governing light, the impact would be less than significant for either the Enhanced TDM Alternative or the proposed Plan.

Shadows on Public or Quasi-Public Spaces

Both the Enhanced TDM Alternative and the proposed Plan propose new regulatory height areas that would establish lower building and base heights in much of the planning area, including on key blocks adjacent to neighborhood parks. They would also establish setbacks along Lake Merritt Park and Channel Park. Though the Enhanced TDM Alternative would produce the same amount of new residential and commercial space as the proposed Plan, development resulting from the Enhanced TDM Alternative would need to accommodate less parking. This could lead to slightly lower building heights and very slight improvements in shade effects under the Enhanced TDM Alternative relative to the proposed Plan. Given proposed height areas and existing design review procedures, the potential for new development to cast shadow that substantially impairs the beneficial use of public open spaces is less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Exception to Existing Policies or Regulations

Neither the Enhanced TDM Alternative nor the proposed Plan would require an exception (variance) to General Plan, Planning Code, or Uniform Building Code policies or regulations, such that the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses. The impact would be less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Noise

Construction Noise

Construction could expose residential uses to noise that would exceed General Plan standard of 80 and 85 dBA for short-term construction noise at receiving residential uses and commercial or industrial uses,

respectively, for some distance around construction sites. The Enhanced TDM Alternative would not differ from the proposed Plan with regard to construction noise impacts, as the same amount of development and the same existing standards would apply. The existing City of Oakland SCA would apply to all alternatives, limiting construction hours, requiring a noise reduction program including the use of best available control techniques on machinery, requiring that stationary noise sources are located as far from adjacent receptors as possible, and providing strict requirements for the use of impact tools such as jack hammers. Adherence to these requirements reduces this potential impact to a level that is less than significant for the Enhanced TDM Alternative and the proposed Plan.

Operational Noise

The Enhanced TDM Alternative is expected to result in the same amount of residential and commercial development, but may result in fewer driving trips to and from Planning Area destinations compared to the proposed Plan, which could mean lower levels of garage-related operational noise. Neither scenario is expected to result in new land uses that would generate substantial noise, such as automotive or industrial uses, and in some cases may result in the replacement of such uses. New buildings would result in noise from mechanical equipment, but this equipment would be standardized for noise reduction and is not expected to exceed Noise Ordinance thresholds. In addition, enforcement of the City's SCA 32, Operational Noise, would reduce any future operational noise impact to less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Increase in Ambient Noise

New development is expected to affect the ambient noise environment by generating additional traffic, and by adding new sources of operational noise such as mechanical equipment. The Enhanced TDM Alternative would result in fewer driving trips to and from Planning Area destinations and therefore a lower increase in ambient noise than the proposed Plan. Operational noise from buildings may be slightly reduced as a result of less garage-related noise. The potential impact from both the Enhanced TDM Alternative and the proposed Plan would be less than significant.

Interior Noise

The Enhanced TDM Alternative does not differ from the proposed Plan in its impacts on interior noise. To achieve California Noise Insulation Standards, many new buildings with residential uses will need to achieve substantial noise reduction from exterior noise levels. The City's SCA 31 mandates incorporation of noise reduction measures into project design to achieve an acceptable interior noise level for residential uses. With enforcement of existing City SCA's, potential impacts related to interior noise are reduced to less than significant for the Enhanced TDM Alternative and the proposed Plan.

Community Noise Environment

Though the Enhanced TDM Alternative would result in fewer driving trips to and from Planning Area destinations and lower levels of traffic-related noise than the proposed Plan, projected community noise levels would still exceed General Plan land use compatibility guidelines in many portions of the Planning Area. However, the community noise environment in much of the Planning Area already exceeds these standards. The City of Oakland's General Plan and Noise Ordinance provide a strong policy framework for minimizing noise impacts. The Noise Element's Action 3.1 requires that new multi-unit buildings meet State insulation standards regulating the maximum allowable interior noise level. The City's SCA 31 requires that noise reduction in the form of sound-rated assemblies (windows, exterior doors, and

walls) and/or other measures be incorporated into project designs. Other SCAs described in the Regulatory Setting section ensure that noise and vibration from construction and operations are minimized. Implementation of these policies, standards, and conditions of approval would ensure that the noise environment in the Planning Area does not increase in a manner that worsens existing land use compatibility or exposes noise-sensitive land uses to "unacceptable" noise levels. This will be true in the 2035 buildout year and at any time during the planning period. Any potential noise impacts would thus be reduced to less than significant for both the Enhanced TDM Alternative and the proposed Plan .

Workplace Noise

Neither the Enhanced TDM Alternative nor the proposed Plan is expected to result in new permanent land uses involving noise-generating activities that would significantly impact interior operational noise levels in workplaces. However, construction activities could potentially expose workers to excessive noise exposure. By enforcing existing City SCAs and federal, State, and local regulations including Cal-OSHA standards, potential impacts related to occupational noise would be reduced to less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Groundborne Vibration

The only permanent source of vibration in the Planning Area is the Union Pacific/Amtrak rail line along the southern edge of a portion of the Planning Area. Currently, this land is occupied by light industrial and parking uses. If development of vibration-sensitive use does occur here, SCA 38 would require acoustical analysis and vibration reduction strategies as needed. Construction–related groundborne vibration would be temporary in nature and related noise impacts would be short-term. With adherence to SCA 38, limiting construction hours, and SCA 39, requiring site-specific noise attenuation measures for all projects involving pile driving or other extreme noise generation, this potential impact would be less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Biological Resources

Special Status Species

All of the alternatives, including Enhanced TDM Alternative and the proposed Plan, would be subject to all existing regulations that protect special status species. These include SCA 44, which limits the impact of tree removal on nesting birds, and other SCAs that ensure Low Impact Development (LID) that will improve water quality in Lake Merritt over the long term. There have been 12 special status species identified as having moderate or high potential to occur, or are known to occur, in or adjacent to the Planning Area, with another nine considered to have a low potential to occur. Both the Enhanced TDM Alternative and the proposed Plan would contribute to habitat improvements along Lake Merritt Channel by supporting Measure DD-funded work, by requiring a setback for new development along the Channel, and extending park land south of I-880. Given proper adherence to existing regulations, impacts would be less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Riparian Habitat

Though no riparian habitat or sensitive natural community currently exists in the Planning Area, planned improvements along Lake Merritt Channel will add new vegetation and potentially create riparian habitat. Both the Enhanced TDM Alternative and the proposed Plan include proposals for additional future park development along the Channel that would also feature this new vegetation. Given adherence to existing City of Oakland SCAs that ensure that riparian corridors are protected as new development takes place,

impacts on riparian habitat would be less than significant for both the Reduced Scope Alternative and the proposed Plan.

Wetlands

Currently, only a small section of Lake Merritt Channel and its banks is classified as wetland eligible for federal protection. Measure DD improvements include restoration in this area that would create additional areas of open water and marsh, potentially creating additional wetlands. Any project in the Planning Area that would impact these wetlands would be subject to Clean Water Act provisions. Thus, potential impacts would be less than significant for the Enhanced TDM Alternative and the proposed Plan.

Wildlife Movement and Wildlife Nursery Sites

Several migratory bird species have been observed using the Lake Merritt Channel corridor, and migratory fish may also use the Channel. In the short term, construction impacts that could potentially disturb native or migratory animals will be less than significant given compliance with all Clean Water Act regulations and City of Oakland SCAs.

Increased recreational use of this corridor by boaters could potentially impact the use of the Channel by water birds. To minimize this potential impact to a less than significant level, both the Enhanced TDM Alternative and the proposed Plan would adopt a policy to restrict small-boat use of Lake Merritt Channel to the non-wintering period of April to September (consistent with Measure DD Mitigation Measures), and to extend this policy to the section of the Channel south of 7th Street in tandem with the extension of park land between I-880 and the Estuary. Both the Enhanced TDM Alternative and the proposed Plan would result in less than significant impacts.

Development under both Enhanced TDM Alternative and the proposed Plan is expected to include many new tall buildings and additional lighting, both of which could result in additional impacts on migrating birds. Both alternatives propose new base and building height limits, and upper story setback requirements. Lower expected building heights here would result in a less than significant impact on wildlife movement along the Channel, the same as that of the proposed Plan.

Both the Enhanced TDM Alternative and the proposed Plan include Measure DD-funded improvements, which will result in extensive changes to existing vegetation and are relevant to nesting habitat for bird species in the Planning Area. These improvements have undergone environmental review and will comply with all SCAs relating to tree removal and protection, including SCA 44 (Tree Removal during Breeding Season). Adherence to these regulations will reduce potential impact of new development in the Planning Area on suitable nesting habitat to less than significant for the Enhanced TDM Alternative and the proposed Plan.

Tree Protection Ordinance

Measure DD-funded improvements along Lake Merritt and the Channel will involve extensive changes. The design of the Measure DD implementation project was significantly shaped by the need to adhere to the City's Tree Protection Ordinance. Elsewhere in the Planning Area, new development activities are expected to occur on parcels with very few trees. As under the proposed Plan, development under the Enhanced TDM Alternative would adhere to the Tree Protection Ordinance, making this impact less than significant.

Creek Protection Ordinance

All properties in the Planning Area are subject to the Creek Protection Ordinance's provisions for limiting non-stormwater discharges and eliminating pollutants from stormwater. Development along Lake Merritt Channel requires a Creek Protection Permit. Nearly all of this land is public park land and much of it is subject to Measure DD-funded improvements, which follow all Ordinance requirements. There is a small amount of land designated for urban uses abutting the Channel, where any development would be subject to all relevant Ordinance requirements. None of the alternatives would differ from the proposed Plan in this regard, and the impact would remain less than significant for the proposed Plan and the Enhanced TDM Alternative.

Geology and Soils

Seismic Hazards

The Planning Area falls within zones of the most severe shaking intensity in the Bay Area. Intense ground shaking has the potential to damage buildings and put people at risk. A substantial portion of the Planning Area along Lake Merritt Channel is also within a liquefaction hazard zone, as identified by the California Geological Society. Liquefaction could damage structures and place people at risk through processes of differential settlement or lateral spreading.

Under both the Enhanced TDM Alternative and the proposed Plan, new development would be required to complete soil reports and follow the California Building Code's current seismic standards. Additionally, new development within the Seismic Hazard Zone would also have to complete a geotechnical study that analyzes liquefaction potential and includes a detailed engineering analysis. Adherence to these regulations would reduce the potential impact of seismic hazards to less than significant for the proposed Plan and this alternative.

Expansive Soil

The Planning Area is likely to have portions underlain with Bay Mud and artificial fills, soils which have the potential to shrink and swell. The placement of new buildings may compress such expansive soils, potentially causing irregular settlement and leading to structural damage. The Enhanced TDM Alternative would result in the same amount of development as the proposed Plan, and the two would put the same number of buildings and people at potential risk due to expansive soils. Adherence to the Uniform Building Code and to City of Oakland SCA, in particular SCA 58 (Soils Report) and SCA 60 (Geotechnical Study, within the Seismic Hazard Zone) make this potential impact less than significant for the proposed Plan and this alternative.

Wells, Landfills and Other Soil Irregularities

The Planning Area could contain old wells, pits, mounds, tank vaults, or unused sewer lines, some of which may be on potential development sites. Following the City's Grading Permit requirements, such soil irregularities would need to be removed or filled prior to permitting, reducing this potential impact to less than significant for the proposed Plan and this alternative.

Hazards and Hazardous Materials

Hazardous Materials Use and Transport

Future commercial land uses are likely to involve the use, storage, transportation, and disposal of hazardous materials such as paints, solvents, cleaning agents, and other chemicals, which could create a potential hazard for area residents, workers and visitors. However, with implementation of existing regulations administered by the City's Fire Prevention Bureau, including the requirement for a Hazardous Materials Business Plan as reinforced by SCA 74, this potential hazard becomes less than significant for all the proposed Plan and the Enhanced TDM Alternative.

Hazardous Materials Upset and Accident Conditions

Accidental release during construction projects and other activities could expose people and the environment to hazardous materials. This potential hazard is less than significant for the proposed Plan and this alternative given federal and state laws governing the use, management, and disposal of hazardous materials, and SCA 35, which requires the use of Best Management Practices.

Excavation and site work as part of new development could result in disturbance and exposure of known or unknown contaminants. The City of Oakland's SCAs include a requirement for all construction sites to take all appropriate measures to protect human health and the environment if potential contamination is found. On sites that have been identified in City records for hazardous materials, additional, strict SCAs apply, reducing this potential impact to less than significant for the proposed Plan and this alternative.

Demolition of existing structures, especially older structures that may contain hazardous building materials, could expose construction workers, the public, or the environment to these materials. This potential hazard is reduced to less than significant for the proposed Plan and this alternative by adherence to federal and state laws, in particular OSHA and Cal-OSHA, as well as SCAs that relate specifically to projects that include the redevelopment or reuse of historically industrial or commercial buildings and to sites that are identified on the Cortese list.

Hazardous Materials near Sensitive Receptors

The Planning Area is a dense, urbanized environment, and contaminated sites are also in the vicinity of substantial numbers of housing units, schools and parks,. The potential impacts of hazardous materials on sensitive receptors is less than significant for the proposed Plan and this alternative through compliance with all existing regulations, including in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor.

Hazardous Materials near Schools

The Planning Area contains eight public or charter schools enrolling nearly 2,000 students. Laney College serves another 13,000 post-secondary students. All schools are within one quarter-mile of one or more contaminated sites. Because projects are required to comply with existing regulations, the potential impacts of hazardous materials on schools and sensitive receptors are less than significant for all alternatives, including the Reduced Scope Alternative. Regulations include in particular the California Accidental Release Program and the City of Oakland's requirements for all businesses that handle any regulated substance within 1,000 feet of a sensitive receptor, as well as requirements reinforced by SCA

74. As a result, the potential impacts of hazardous materials on schools and sensitive receptors are less than significant for the proposed Plan and the Enhanced TDM Alternative .

Development on Contaminated Sites

The Planning Area includes 16 sites that are on the State's "Cortese list," including three clean-up sites under Department of Toxic Substances Control authority and 13 under authority of the Regional Water Quality Control Board. Five of these clean-up sites are identified under the Station Area Plan and Enhanced TDM Alternative as "opportunity sites," meaning development is considered likely. Any development of these sites will be required to adhere to all clean-up requirements as stipulated by the State agency with jurisdiction, and will also be required to comply with all SCAs that apply specifically to sites with known contamination. Enforcement of all requirements will reduce this potential impact to a less than significant level for the Enhanced TDM Alternative and the proposed Plan.

Emergency Access

Most of the Planning Area uses a traditional street grid pattern, while the central portion uses large "super blocks" around Laney College, the Kaiser Auditorium, and the Channel. The same as the proposed Plan, the Enhanced TDM Alternative would not vacate any street or otherwise result in the existence of streets exceeding 600 feet in length that have fewer than two emergency response routes, resulting in a less than significant impact for the proposed Plan and the Enhanced TDM Alternative.

Emergency Response and Evacuation

Both the proposed Plan and the Enhanced TDM Alternative propose significant streetscape improvements, including lane reductions for vehicles. These will not result in any change with regard to access by emergency vehicles, and accessibility for pedestrians and cyclists would be enhanced. The potential impact on emergency access and emergency response would be less than significant for the proposed Plan and the Enhanced TDM Alternative.

Hydrology and Water Quality

Water Quality Standards and Waste Discharge Requirements

Both construction and permanent development patterns have the potential to affect water quality. On sites of one acre or more, new construction projects will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) under the General Construction Permit, and all construction projects will be subject to City of Oakland SCAs. Incorporation of Best Management Practices (BMPs) as required will lessen the potential impacts to water quality resulting from erosion and siltation caused by construction to less than significant for both the Reduced Scope Alternative and the proposed Plan.

Development under both the Enhanced TDM Alternative and the proposed Plan would occur on sites that are already paved or developed, meaning that there is not expected to be an increase in the amount of impervious surface in the Planning Area, and no consequent increase in stormwater runoff—a major source of water quality issues—over the life of new projects. Both scenarios include streetscape improvements and policies regarding stormwater runoff. Additionally, the City requires that Low Impact Development (LID) techniques be used, making this potential impact less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Groundwater Recharge

Neither the Enhanced TDM Alternative nor the proposed Plan is expected to result in increased amounts of impervious surface area in the Planning Area. The potential impact on groundwater recharge is less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Erosion or Siltation

Potential impacts of development on erosion or siltation are possible under both the Enhanced TDM Alternative and the proposed Plan. However, these effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations. The potential impact would still be less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Substantial Flooding

Development from both the Enhanced TDM Alternative and the proposed Plan has the potential to increase runoff, which could result in substantial flooding hazards on- or off-site. However, these potential effects are minimized by the fact that new development will take place on already-urbanized sites, and will be required to adhere to existing regulations, reducing the potential impact to less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Stormwater Drainage System

Neither the Enhanced TDM Alternative nor the proposed Plan is expected to increase the amount of runoff due to both the highly-urbanized existing context and the City's Low Impact Development policies. Impacts on the storm drainage system would be less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Runoff and Other Potential Sources of Water Quality Degradation

Intensification of the urban environment has the potential to result in increased runoff, which could be the source of additional polluted runoff. However, new development will take place on already urbanized sites and will be required to adhere to all existing regulations and SCAs, making this potential impact less than significant for both the Enhanced TDM Alternative and the proposed Plan. .

Housing and Structures in a Flood Hazard Area

The Planning Area has a small 100-year flood zone that is almost entirely confined to park land along Lake Merritt and Lake Merritt Channel. Existing building code requirements, SCAs, and the Creek Protection Ordinance would apply to all new development. Both the Enhanced TDM Alternative and the proposed Plan include a requirement for a 100-foot setback from the Channel, and existing regulations concerning building in a flood zone and requirements for a Creek Protection permit make the potential for new housing or structures to impede or redirect flood flow. The potential impact is less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Exposure to Flooding, and Sea Level Rise

Exposure to Flooding

Both the Enhanced TDM Alternative and the proposed Plan include a requirement for a 100-foot setback from the Channel. Additionally, existing regulations concerning building in a flood zone and requirements for a Creek Protection permit would apply to all new development under these alternatives. Adherence to all building code requirements and SCA as well as the Creek Protection Ordinance will make the potential for the exposure of people or structures to a substantial risk of loss, injury, or death involving flooding less than significant for both the Enhanced TDM Alternative and the proposed Plan.

Sea Level Rise

Portions of the Planning Area along Lake Merritt and Lake Merritt Channel, as well as adjacent land at the Peralta Community College District Administration site, could be at risk of potential sea level rise. None of this land is expected to be developed with housing or other uses that would place people at risk. Current potential sea level rise maps do not account for existing flood protection structures. Portions of the Planning Area potentially exposed to 16-inch and 55-inch sea level rise are being studied as part of BCDC's *Adapting to Rising Tides* project. The project will further identify potential adaptation strategies to mitigate the effects of sea level rise. Adaptation strategies will likely require the involvement of regional, state and federal partners.

Furthermore, implicit in the discussion of global warming, greenhouse gas emissions and sea level rise is that it extends beyond specific development projects, a specific plan area, or, indeed, an entire City. The adopted Bay Plan and Oakland's Draft Energy and Climate Action Plan (ECAP) specifically recognize this and include actions to participate in the preparation of a regional climate adaption strategy. It is reasonable to expect that sea level rise projections will become incorporated into flood hazard mapping, and that existing policies and regulations that provide protection from flooding will also apply to areas where potential sea level rise will occur. The potential impact is less than significant, the same as the proposed Plan.

Tsunami, Seiche, or Mudflow

A small portion of the Planning Area along Lake Merritt Channel is within the tsunami runup zone. This zone is mapped for emergency response planning purposes and does not dictate any restriction in land use. The Planning Area is not susceptible to seiche or mudflow, making this impact less than significant for the proposed Plan and the Enhanced TDM Alternative.

Drainage Pattern

None of the alternatives is expected to directly alter the course or increase the rate or amount of flow of a creek. Potential indirect impacts that could result in substantial alteration of drainage patterns leading to erosion, siltation, or flooding are reduced to less than significant for the proposed Plan and this alternative through adherence to existing regulations and SCAs.

Creek Protection

None of the alternatives is expected to affect enforcement of the City's Creek Protection Ordinance. This potential impact would be less than significant for the Enhanced TDM and the proposed Plan.

THEORETICAL MAXIMUM BUILDOUT ALTERNATIVE

This alternative assumes that nearly every parcel within the Planning Area (except those designated for Open Space) would be developed to the maximum allowed by proposed land use regulations. Given that the majority of land within the Plan Area is currently developed with a wide variety of existing uses that are likely to remain well into the future, the likelihood of "maximum buildout" occurring is considered so highly unlikely as to be theoretical. As shown in Table 4.2-1, the Theoretical Maximum Buildout Alternative results in substantially more growth that the project, resulting in about 32,600 additional residential units and 32.7 million additional square feet of commercial space, which is about 7 times more growth in residential units and 19 times more growth in commercial space that in the proposed Plan.

Because the Theoretical Maximum Buildout Alternative would allow an increment of growth substantially greater than the project, the Theoretical Maximum Buildout Alternative can be assumed to result in significantly more intense environmental effects for every environmental topic considered. All of the project's significant and unavoidable impacts would be substantially increased[2] in intensity by Theoretical Maximum Buildout Alternative. Moreover, as shown in **Table 4.4-1,** Theoretical Maximum Buildout Alternative would be likely to create significant impacts in numerous environmental topic areas where the project would result in less-than-significant impacts. For example, Theoretical Maximum Buildout Alternative would result in 32,600 additional housing units – this would significantly induce population growth in a manner not contemplated by the General Plan. In addition, a new population of this magnitude would foreseeably result in significant impacts to public services, recreation, and utilities, among other areas.

4.4 Environmentally Superior Alternative

CEQA Guidelines (Section 15123(e)(2)) require the identification of an environmentally superior alternative among the alternatives analyzed. CEQA Guidelines mandate that if the No Project Alternative is identified as the environmentally superior alternative, then another environmentally superior alternative must be identified.

The identification of the Environmentally Superior Alternative results from a comparison of the impacts associated with each alternative, as summarized in **Table 4.4-1**. Based on a comparison of the alternatives' overall environmental impacts, the Reduced Scope Alternative is identified as the environmentally superior alternative. The analysis includes consideration of the tradeoffs among alternatives. While some alternatives may offer environmental advantages in several issue areas, they may cause more severe impacts in other issue areas.

All new development under the proposed Plan would be in the form of infill development—the redevelopment of existing sites—and this is true of each of the alternatives. Therefore, impacts are similar across the alternatives for many issue areas, including biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality. For some issue areas, any alternative except for the ACTC Defined No Project or Trends-Based No Project is preferred over those alternatives since key land use, height and massing amendments or policies are included that would reduce potential impacts to less

[2] As the population would be increased substantially, per capita effects may appear less than other alternatives, however, overall impacts would be greater.

than significant. For other issue areas, the extent of future development is the most important factor, and this tends to favor the Reduced Scope Alternative and the Trends-Based No Project, both of which involve less future development than the proposed Plan. The Enhanced TDM Alternative is primarily identified as preferred over other alternatives and over the proposed Plan in relation to greenhouse gases and climate change.

The Trends-Based No Project would result in the lowest number of households and jobs compared to the proposed Plan and all alternatives. The lower growth under this alternative means it would likely result in the fewest impacts related to population-related externalities such as parks and recreation, police and fire services, schools, demand for water supply and wastewater services. The Trends-Based No Project Alternative is also preferred over other alternatives and the proposed Plan for aesthetics, particularly in terms of scenic vistas and shade and shadow given the lower building heights. The alternative's substantially lower traffic generation would result in fewer mitigable traffic impacts than any other alternative or the proposed Plan, and reduce the cost of necessary capital improvements (though not reducing any significant and unavoidable impacts to less than significant). However, consistent with CEQA Guidelines, the Trends-Based No Project Alternative would not satisfy basic objectives of the Plan, namely the enhancement of a higher-density and –intensity transit-oriented neighborhood adjacent to downtown Oakland and directly accessible to the regional transit system. The proposed Plan's objectives are described more fully in Section 2.2, Purpose and Objectives of the Proposed Plan. Because it is a No Project alternative and does not meet the basic objectives of the proposed Plan, it is set aside for selection as the environmentally superior alternative.

The Reduced Scope Alternative is preferred over the proposed Plan and other alternatives for the same issue areas as the Trends-Based No Project, though the amount of anticipated development is somewhat larger than the Trends-Based No Project alternative. The Reduced Scope Alternative also has the advantage of including the proposed land use, building height and massing, and other policies in the proposed Plan that help to reduce some environmental impacts. The Reduced Scope Alternative would result in buildings closer to the scale of existing development compared to the proposed Plan, while retaining the detailed design guidelines that coincide with the Plan, lessening the potential for land use conflicts or aesthetic impacts. The lower scale of development would also reduce potential impacts to historic resources by lowering development pressure, while retaining the proposed Plan's design guidelines for addressing the historic context. The Reduced Scope's smaller amount of development would result in less traffic generation, and consequently reducing significant mitigable traffic impacts (though not avoiding significant and unavoidable impacts), while minimizing potential impacts with regard to greenhouse gases and noise. The smaller population would also mean that fewer people would be affected by TAC and odor impacts.

While the Reduced Scope Alternative is identified as the environmentally superior alternative, it would not reduce any significant and unavoidable impacts—including for traffic, TACs, odors, or historic resources—to less than significant. As described in Section 4.1, no alternative is available that would reduce these impacts to levels that are less than significant. This finding is due to the nature of the impacts identified, for which feasible mitigation measures are not available Significant and unavoidable impacts related to traffic are due to "existing deficiencies" and future cumulative traffic on Caltrans facilities where there is no feasible way to add capacity, so the only Alternative that would eliminate these impacts would have to have a negative trip generation, which is not a feasible scenario. For air quality, there are no feasible mitigation measures related to exposure to gaseous TACs or odors, indicating that these issue areas would continue to be significant and unavoidable under any alternative. There would also be a

significant and unavoidable impact on historic resources under any alternative, as no mitigation is identified that could ensure that all designated historic properties and potentially designated historic properties would be preserved, while also maintaining the ability for these properties to be used.

Neither of the No Project alternatives would include the proposed Plan land use direction and policies that are designed to minimize environmental impacts while ensuring a high quality urban environment that incorporates the goals and vision of the community. By this measure, the Reduced Scope Alternative has an advantage over both the ACTC Defined No Project and the Trends-Based No Project. However, the Reduced Scope Alternative would be less successful than the proposed Plan in meeting the key objectives and visions for the area, such as achieving high-density Transit-Oriented-Development near the Lake Merritt BART Station, increasing activity and safety in the area through the addition of jobs and housing, increasing the housing supply accommodating the future population including residents of all incomes and sizes, and increasing access to jobs. The Reduced Scope Alternative would also be less successful than the Enhanced TDM Alternative and ACTC Defined No Project alternatives on these points: both of those alternatives would facilitate more new housing and jobs in close proximity to transit and a major regional center, while the Enhanced TDM Alternative would go further with transit-supportive policies. The Reduced Scope Alternative does not adequately meet project objectives, and thus was not selected as the proposed Plan.

Table 4.4-1: Summary Comparison Of Impacts: Proposed Plan And Alternatives

Significance levels shown in the table reflect levels of significance after Standard Conditions of Approval are taken into account. Each alternative's degree of impact relative to the proposed Plan is compared to the proposed Plan without mitigation.

*Table Key: NI: No Impact; LTS: Less than Significant; LSM: Less than Significant after Mitigation; PS: Potentially Significant; SU: Significant and Unavoidable; ↓: Lesser Impact Than the Proposed Plan; ↑: Greater Impact Than the Proposed Plan; *: Similar Level of Impact Compared to Proposed Plan*

	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
3.1	**Land Use and Housing**							
Impact LU-1	New development under the proposed Station Area Plan would not physically divide an existing community.	LTS	LTS	LTS *	LTS *	LTS ↑	LTS ↑	LTS ↑
Impact LU-2	New development under the proposed Station Area Plan would not result in a fundamental conflict between adjacent or nearby land uses.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	LTS ↑
Impact LU-3	New development under the proposed Station Area Plan would not fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment.	LTS	LTS	LTS *	LTS *	LTS ↓	LTS ↓	LTS ↑
Impact LU-4	New development under the proposed Station Area Plan would not displace substantial numbers of housing units or people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.	LTS	LTS	LTS *	LTS *	LTS ↓	LTS ↓	SU
Impact LU-5	New development under the proposed Station Area Plan would not induce substantial population growth in a manner	LTS	LTS	LTS ↑	LTS *	LTS *	LTS ↑	SU

Table 4.4-1: Summary Comparison Of Impacts: Proposed Plan And Alternatives

Significance levels shown in the table reflect levels of significance after Standard Conditions of Approval are taken into account. Each alternative's degree of impact relative to the proposed Plan is compared to the proposed Plan without mitigation.

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed.							
3.2	**Transportation and Traffic**							
Note: The transportation assessment for alternatives is based on comparative trip generation analysis and measure of effectiveness rather than detailed intersection and roadway analysis. Trip generation is an effective proxy for Level of Service (LOS) because regardless of the type of transportation facility and increase in traffic volume corresponds to a degradation in LOS. The findings here extrapolate the analysis described in Section 4.3 of this chapter, assuming that alternatives that result in fewer trips have fewer impacts on roadways and intersections. Impacts to transit facilities (which are indirectly based on increases in peak hour traffic) are assumed to be less where the alternative's buildout land use is less (Reduced Scope Alternative and Trends-Based No Project) and are also expected to be less for the Enhanced TDM Alternative which shifts travel from the automobile to other modes thereby reducing traffic volumes. .								
Impact TRAN -1	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Lake Merritt Boulevard and 11th Street under Existing Plus Project conditions**.**	PS	LSM	LTS↓	LTS*	LTS↓	LTS↓	SU
Impact TRAN -2	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of 1st Avenue and International Boulevard under Existing Plus Project conditions.	PS	LSM	LTS↓	LTS*	LTS↑	LTS↑	SU
Impact TRAN -3	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 10th Street under	LTS	LTS	LTS↓	LTS*	LTS↓	LTS↓	SU

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	Existing Plus Project conditions.							
Impact TRAN -4	Traffic generated by the Project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 10th Street under Existing Plus Project conditions.	LTS	LTS	LTS↓	LTS*	LTS↓	LTS↓	SU
Impact TRAN -5	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Jackson Street and 7th Street under Existing Plus Project conditions.	LTS	LTS	LTS↓	LTS*	LTS↓	LTS↓	SU
Impact TRAN -6	Traffic generated by the Project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 6th Street under Existing Plus Project conditions.	LTS	LTS	LTS↓	LTS*	LTS↓	LTS↓	SU
Impact TRAN -7	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Jackson Street and 5th Street under Existing Plus Project conditions.	LTS	LTS	LTS↓	LTS*	LTS↓	LTS↓	SU
Impact TRAN -8	Traffic generated by the project would impact traffic levels of service on freeway segments under Existing Plus Project conditions.	SU	SU	SU↓	SU*	SU↓	SU↓	SU
Impact TRAN -9	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 14th Street under	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	SU

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	Interim 2020 Plus Project conditions.							
Impact TRAN-10	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 14th Street under Interim 2020 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN-11	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Brush Street and 12th Street under Interim 2020 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU
Impact TRAN-12	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 10th Street under Interim 2020 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	SU
Impact TRAN-13	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Jackson Street and 6th Street under Interim 2020 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN-14	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 6th Street under Interim 2020 Plus Project conditions.	SU	SU	SU ↓	SU*	LTS ↓	LTS ↓	SU
Impact TRAN-15	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	Oak Street and 5th Street under Interim 2020 Plus Project conditions.							
Impact TRAN -16	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Grand Avenue and Broadway under Cumulative 2035 Plus Project conditions	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN -17	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 14th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN -18	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Castro Street and 11th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑ Should be reflected in the write-up above. Plan, which is LTS significant due to the LOS F rating of that scenario.	PS ↑	SU
Impact TRAN -19	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of	SU	SU	SU ↓	SU *	LTS ↓	LTS ↓	SU

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	Madison Street and 11th Street under Cumulative 2035 Plus Project conditions.							
Impact TRAN -20	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 10th Street under Cumulative 2035 Plus Project conditions.	SU	SU	SU ↓	SU *	LTS ↓	LTS ↓	SU
Impact TRAN -21	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 10th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS ↓	LTS ↓	SU
Impact TRAN -22	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Webster Street and 8th Street under Cumulative 2035 Plus Project conditions.	SU	SU	SU ↓	SU *	SU*	SU ↓	SU
Impact TRAN -23	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Harrison Street and 8th Street under Cumulative 2035 Plus Project conditions.	SU	SU	SU ↓	SU *	SU *	LTS ↓	SU
Impact TRAN -24	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Jackson Street and 8th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN	Traffic generated by the project would cause the Level of Service to degrade to	LTS	LTS	LTS ↓	LTS *	LTS ↓	LTS ↓	SU

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
-25	worse than LOS E at the intersection of Madison Street and 8th Street under Cumulative 2035 Plus Project conditions.							
Impact TRAN -26	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 8th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	SU
Impact TRAN -27	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Jackson Street and 7th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN -28	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 7th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	SU
Impact TRAN -29	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 7th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS ↓	LTS ↓	SU
Impact TRAN -30	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of 5th Avenue and 7th/8th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU

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Impact TRAN-31	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Jackson Street and 6th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN-32	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Madison Street and 6th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	LTS ↓	LTS ↓	SU
Impact TRAN-33	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 6th Street under Cumulative 2035 Plus Project conditions.	SU	SU	SU ↓	SU *	LTS ↓	LTS ↓	SU
Impact TRAN-34	Traffic generated by the project would cause the Level of Service to degrade to worse than LOS E at the intersection of Oak Street and 5th Street under Cumulative 2035 Plus Project conditions.	LTS	LTS	LTS ↓	LTS *	PS ↑	PS ↑	SU
Impact TRAN-35	Traffic generated by the Project would affect the Level of Service on the roadway segments under Cumulative Plus Project conditions. The segment of Oak Street between 2nd Street and Embarcadero exceeds the standard of LOS E in the PM peak hour.	SU	SU	SU ↓	SU *	SU *	SU ↓	SU
Impact TRAN	Traffic generated by the Project would affect the travel times of AC Transit	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU

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-36	buses on routes through the study area under Cumulative 2035 conditions. Travel time degradation is caused by increases in intersection delay and associated back-ups.							
Impact TRAN -37	New development under the Lake Merritt Station Area Plan could result in a decrease in Road User Safety.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS *	SU
Impact TRAN -38	New development under the proposed Lake Merritt Station Area Plan could result in a decrease in Pedestrian Safety.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS *	SU
Impact TRAN -39	New development under the proposed Station Area Plan could result in a decrease in Bicycle Safety.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS *	SU
Impact TRAN -40	New development under the proposed Station Area Plan could result in a decrease in Bus Rider Safety.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS *	SU
Impact TRAN -41	New development under the proposed Lake Merritt Station Area Plan could result in an increase in the hazard at Railroad Grade Crossings.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	SU
Impact TRAN -42	New development under the proposed Lake Merritt Station Area Plan would not result in conflicts with existing adopted city policies, plans or programs.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	SU
Impact TRAN -43	New development under the proposed Lake Merritt Station Area Plan could result in substantial, though temporary, adverse effect on the circulation system	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU

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	during construction of the project.							
Impact TRAN -44	Development under the Lake Merritt Station Area Plan would not result in any change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.	NI	NI	NI *	NI *	NI *	NI *	SU
3.3	**Air Quality**							
Impact AQ-1	Implementation of the proposed Plan would not result in an implementing document that is inconsistent with the goals and control measures of the Clean Air Plan.	LTS	LTS	LTS *	LTS ↓	LTS ↑	LTS ↑	SU
Impact AQ-2	Implementation of the proposed Plan would not result in an increase in vehicle trips at a rate that would exceed the rate of population increase within the Planning Area.	LTS	LTS	LTS↑	LTS ↓	LTS ↓	LTS ↑	SU
Impact AQ-3	Implementation of the proposed Plan, together with City of Oakland Standard Conditions of Approval, address risks associated with TAC sources and sensitive receptors in its goals, policies and objectives.	SU	SU	SU *	SU *	SU *	SU *	SU
Impact AQ-4	New development under the proposed Plan may expose new residential development to existing odors, affecting a substantial number of people.	SU	SU	SU *	SU *	SU *	SU *	SU

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3.4	**Climate Change and Greenhouse Gases**							
Impact GHG-1	New development under the proposed Plan would produce greenhouse gas emissions that exceed 1,100 metric tons of CO2e per year, but that would not exceed 4.6 metric tons of CO2e per service population annually.	LTS	LTS	LTS ↓	LTS ↓	LTS ↑	LTS ↑	LTS ↑
Impact GHG-2	New development under the proposed Plan would not conflict with an applicable plan, policy or regulation of an appropriate regulatory agency adopted for the purpose of reducing greenhouse gas emissions.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS *
3.5	**Parks and Recreation**							
Impact PR-1	New development under the proposed Plan would not increase the use of existing parks such that substantial physical deterioration would occur or be accelerated.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	SU
Impact PR-2	New development under the proposed Plan would not require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	SU
3.6	**Public Services**							
Impact PUB-1	Future development under the proposed Plan may require additional fire protection	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU

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	services, but would not result in the need for new or physically altered facilities that would result in substantial adverse physical impacts.							
Impact PUB-2	Future development under the proposed Plan may require additional police protection services, but would not result in the need for new or physically altered facilities that would result in substantial adverse physical impacts.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	SU
Impact PUB-3	Future development under the proposed Plan may increase the demand for schools or other public facilities but would not result in the need for new or physically altered facilities that would result in substantial adverse physical impacts.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU
3.7	**Utilities and Service Systems**							
Impact UTL-1	Development of the Plan Area as proposed would not exceed the wastewater treatment requirements of the San Francisco Regional Water Quality Control Board.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU
Impact UTL-2	The proposed Plan would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	SU

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Impact UTL-3	The proposed Plan would not exceed water supplies available to serve the Planning Area from existing entitlements and resources, nor require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU
Impact UTL-4	The increased generation of wastewater by the proposed Plan would not result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	SU
Impact UTL-5	Implementation of the proposed Plan would not exceed permitted capacity of landfills that serve the area or impede the City's ability to meet State waste diversion requirements.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS ↑
Impact UTL-6	Implementation of the proposed Plan would not violate regulations relating to energy standards; nor result in a determination by the energy provider which serves or may serve the area that it does not have adequate capacity to serve projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS ↑

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	facilities.							
3.8	**Cultural and Historic Resources**							
Impact CUL-1	Future development under the proposed Plan would cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines section 15064.5.	SU	SU	SU *	SU *	SU *	SU ↓	SU ↑
Impact CUL-2	Future development under the proposed Plan would not cause a substantial adverse change in the significance of archaeological resources pursuant to CEQA Guidelines section 15064.5	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS ↑
Impact CUL-3	Future development under the proposed Plan would not disturb any human remains, including those interred outside formal cemeteries.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS ↑
Impact CUL-4	Future development under the proposed Plan would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS ↑
3.9	**Aesthetics**							
Impact AES-1	New development under the proposed Plan would not have a substantial adverse effect on a public scenic vista.	LTS	LTS	LTS ↓	LTS *	LTS ↓	LTS ↓	LTS ↑

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Impact AES-2	New development facilitated by the proposed Plan would not substantially degrade the existing visual character or quality of the Planning Area and its surroundings.	LTS	LTS	LTS ↓	LTS ↓	LTS ↑	LTS ↑	LTS ↑
Impact AES-3	New development facilitated by the proposed Plan would not create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area.	LTS	LTS	LTS ↓	LTS ↓	LTS *	LTS ↓	LTS ↑
Impact AES-4	New development facilitated by the proposed Plan would not cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space.	LTS	LTS	LTS ↓	LTS *	SU ↑	SU ↑	SU ↑
Impact AES-5	New development facilitated by the proposed Plan would not require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	SU ↑
3.10	**Noise**							
Impact NO-1	New development under the proposed Plan would not generate noise in violation	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS↑

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts, or generate noise in violation of the City's nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise.							
Impact NO-2	New development under the proposed Plan would not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise.	LTS	LTS	LTS ↓	LTS ↓	LTS *	LTS ↓	LTS↑
Impact NO-3	New development under the proposed Plan would not generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the Plan vicinity above levels existing without the proposed Plan.	LTS	LTS	LTS ↓	LTS ↓	LTS *	LTS ↓	SU↑
Impact NO-4	New development under the proposed Plan would not expose persons to interior L_{dn} or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings), per California Noise Insulation Standards (CCR Part 2, Title 24).	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
Impact NO-5	New development under the proposed Plan would not expose people in the Planning Area to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval.	LTS	LTS	LTS ↓	LTS ↓	LTS *	LTS ↓	LTS↑
Impact NO-6	New development under the proposed Plan would not expose persons to noise levels in excess of applicable standards established by a regulatory agency(e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA].	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS↑
Impact NO-7	During either project construction or operation, new development under the proposed Plan could expose persons to or generate groundborne vibration that exceeds criteria established by the Federal Transit Administration (FTA).	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS↑
3.11	**Biological Resources**							
Impact BIO-1	New development under the proposed Plan would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game	LTS	LTS	LTS *	LTS *	LTS ↑	LTS ↑	LTS↑

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	or U.S. Fish and Wildlife Service.							
Impact BIO-2	New development under the proposed Plan would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	LTS	LTS	LTS *	LTS *	LTS ↑	LTS ↑	LTS↑
Impact BIO-3	New development under the proposed Plan would not have a substantial adverse effect on federally protected wetlands (as defined by section 404 of the Clean Wate Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	SU↑
Impact BIO-4	New development under the proposed Plan would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	LTS	LTS	LTS ↓	LTS *	LTS ↑	LTS ↓	LTS↑
Impact BIO-5	New development under the proposed Plan would not fundamentally conflict with the City of Oakland Tree Protection Ordinance (Oakland Municipal Code [OMC] Chapter 12.36) by removal of protected trees under certain circumstances.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
Impact BIO-6	New development under the proposed Plan would not fundamentally conflict with the City of Oakland Creek Protection Ordinance (Oakland Municipal Code [OMC] Chapter 13.16) intended to protect biological resources.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
3.12	**Geology and Soils**							
Impact GEO-1	New development under the proposed Plan could expose people or structures to substantial risk of loss, injury, or death involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map or Seismic Hazards Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; • Strong seismic ground shaking; • Seismic-related ground failure, including liquefaction, lateral spreading, subsidence,collapse; or • Landslides.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS↑
Impact GEO-2	New development under the proposed Plan could be could be located on expansive soil, as defined in section 1802.3.2 of the California Building Code, but would not create substantial risks to life, property, or creeks/waterways.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS↑

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
Impact GEO-3	New development under the proposed Plan would not be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, landfill for which there is no approved closure or post-closure plan, or unknown fill soils, creating substantial risks to life or property.	LTS	LTS	LTS ↓	LTS *	LTS *	LTS ↓	LTS↑
3.13	**Hazards and Hazardous Materials**							
Impact HAZ-1	New development under the proposed Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HAZ-2	Development under the proposed Plan would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment .	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HAZ-3	New development under the proposed Plan would not create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HAZ-4	New development under the proposed Plan would not emit hazardous emissions or handle hazardous or acutely	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑

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	hazardous materials, substances, or waste within one quarter mile of an existing or proposed school.							
Impact HAZ-5	New development under the proposed Plan could be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 (i.e. the "Cortese List") but would not as a result create a significant hazard to the public or the environment.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HAZ-6	New development under the proposed Plan would not result in fewer than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HAZ-7	New development under the proposed Plan would not fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
3.14	**Hydrology and Water Quality**							
Impact HYD-1	Implementation of the proposed Plan would not violate any water quality standards or waste discharge	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑

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	Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
	requirements.							
Impact HYD-2	Implementation of the proposed Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted).	LTS		LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HYD-3	Implementation of the proposed Plan would result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HYD-4	Implementation of the proposed Plan would not result in substantial flooding on- or off-site.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HYD-5	Implementation of the proposed Plan would not create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HYD-6	Implementation of the proposed Plan would not create or contribute substantial runoff which would be an additional source of polluted runoff, or otherwise	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑

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	substantially degrade water quality.							
Impact HYD-7	Implementation of the proposed Plan would not place housing or other structures within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows.	LTS	LTS	LTS *	LTS *	LTS ↑	LTS ↑	LTS↑
Impact HYD-8	Implementation of the proposed Plan would not expose people or structures to a substantial risk of loss, injury, or death involving flooding.	LTS	LTS	LTS *	LTS *	LTS ↑	LTS ↑	LTS↑
Impact HYD-9	Implementation of the proposed Plan would not expose people or structures to a substantial risk of loss, injury, or death as a result of seiche, tsunami, or mudflow.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HYD-10	Implementation of the proposed Plan would not substantially alter the existing drainage pattern of the area, including through the alteration of the course or increasing the rate or amount of flow of a creek in a manner that would result in substantial erosion, siltation, or flooding both on- or off-site.	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑
Impact HYD-11	Implementation of the proposed Plan would not fundamentally conflict with the City of Oakland Creek Protection	LTS	LTS	LTS *	LTS *	LTS *	LTS *	LTS↑

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Environmental Impact	*Proposed Plan*	*Proposed Plan (with Mitigation)*	*Reduced Scope Alternative*	*Enhanced TDM Alternative*	*ACTC Defined No Project*	*Trends-Based No Project*	*Theoretical Maximum Buildout*
Ordinance (OMC Chapter 13.16) intended to protect hydrological resources.							

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5 CEQA Required Conclusions

This chapter presents a summary of the impacts of the proposed Lake Merritt Station Area Plan in several subject areas specifically required by CEQA, including growth-inducing impacts, significant unavoidable impacts, significant irreversible environmental changes, and effects not found to be significant. These findings are based on the analysis provided in Chapter 3: Settings, Impacts, and Mitigation Measures.

5.1 Growth Inducing Impacts

The EIR must examine the potential growth-inducing impacts of the proposed Plan. More specifically, CEQA Guidelines require that the EIR "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly" (CEQA Guidelines Section 15126.2(d)). This analysis must also consider the removal of obstacles to population growth, such as improvements in the regional transportation system, if relevant. The Lake Merritt Station Area Plan does not include improvements to regional systems.

Growth-inducing impacts such as those associated with job increases that might affect housing and retail demand outside the Planning Area over an extended time period are difficult to assess with precision, since future economic and population trends may be influenced by unforeseeable events. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes in policies or specific development projects. Business trends are influenced by economic conditions throughout the state and country as well as around the world.

Another consideration is that the creation of growth potential does not automatically lead to growth. Growth occurs through capital investment in new economic opportunities by the private or public sector. These investment patterns reflect, in turn, the desires of investors to mobilize and allocate their resources to development in particular localities and regions. These factors, combined with the regulatory authority of local governments, serve to mediate the growth-inducing potential or pressure created by a proposed plan. Despite these limitations on the analysis, it is still possible to qualitatively assess the general potential growth-inducing impacts of the proposed Plan.

DIRECT AND INDIRECT POPULATION GROWTH

The analysis of Impact LU-4 in the Land Use, Planning, Population, and Housing section of Chapter 3 covers the potential impact of induced population growth in detail. To summarize this discussion, projected housing and job growth supported by the Station Area Plan match very closely with long-range population and jobs forecast by the Association of Bay Area Governments (ABAG). The potential for the proposed Plan to induce growth outside the Planning Area as a result of infrastructure improvements or new jobs is also less than significant, because proposed infrastructure improvements would not add

capacity, and the Planning Area would actually house a lower proportion of new jobs than other parts of Oakland. This potential impact is cumulative in nature, and is less than significant.

REGIONAL GROWTH

As the employment base in the San Francisco Bay Area continues to expand, housing demand may increase in the Planning Area. More people may be drawn to live in the Planning Area even though they may work elsewhere in Oakland, the East Bay, or the larger Bay Area. The proposed Station Area Plan may also have the effect of fostering development in the Planning Area. To the extent the proposed Plan contributes to more regional growth occurring in the Planning Area, this would have the effect of reducing travel trips and increasing the proportion of trips taken by transit, on foot, and by bike. The proposed Plan will contribute to the development of a high-density, mixed-use cluster of housing and workplaces in greater downtown Oakland, thus supporting a key strategy for long-term regional growth that minimizes transportation, air quality, climate change, and other environmental impacts.

5.2 Significant Unavoidable Impacts

Significant unavoidable impacts are those that cannot be mitigated to a level that is less than significant. According to CEQA Guidelines 15126(b), an EIR must discuss any significant environmental impacts that cannot be avoided under full implementation of the proposed program. Chapter 3 identified the following significant unavoidable impacts when comparing the proposed Plan to existing conditions.

TRANSPORTATION

As described in Section 3.2, the proposed Plan is expected to contribute to significant, unavoidable traffic impacts when compared with existing conditions, as well as cumulative No Project conditions in both the interim year 2020 and the buildout year 2035. These impacts would occur at intersections and along roadway segments, and involve both City streets and freeways.

Existing Plus Project

Traffic generated by buildout of the proposed Plan would degrade the Level of Service at four City of Oakland intersections in or near the Planning Area, from LOS E or better to LOS F during the AM and/or PM peak periods, compared to No Project conditions. This is the threshold used by the City of Oakland to distinguish traffic impacts related to a project from those already projected to occur. LOS would be degraded below this threshold at the intersections of 1st Avenue and International Boulevard; Oak and 10th Streets; Oak and 5th Streets; and Jackson and 5th Streets. These are considered significant impacts.

No feasible mitigation measures are available that would mitigate the impacts at these intersections. The Level of Service can be improved by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

Traffic generated by buildout of the proposed Plan would also increase the volume to capacity ratio (V/C) for the freeway segment of I-880 from 5th Avenue to Oak Street in the northbound and southbound directions. The freeway segment currently exceeds the Congestion Management Program (CMP) LOS threshold for freeways, as used by the City of Oakland, and the addition of any traffic will increase V/C. Therefore, the addition of traffic generated by the proposed Plan is considered a significant impact.

As shown in the Alameda County CMP, there are plans to improve this area with the I-880 / Broadway-Jackson Interchange project. This project entails reconstructing the off-ramp from Northbound I-880 to end at Webster Street, depressing Harrison Street, providing a left-turn lane from Harrison Street to 6th Street, constructing a new Northbound I-880 on-ramp from Market Street, and constructing a new southbound I-880 off-ramp to Martin Luther King Jr. Way. However, the Interchange project will not be adding additional lanes to the mainline. The freeway segment in the Planning Area is over capacity and would require the addition of freeway lanes to achieve the County's standards. This mitigation would be within Caltrans' jurisdiction and outside the City's control. Because the City cannot assure implementation of any mitigation, the impact remains significant and unavoidable.

The increase in traffic volumes due to the proposed Plan could also cause increases in pedestrian delay in at two intersections in the City of Alameda, by necessitating increasing the overall cycle length at the traffic signal. The volumes created by the Lake Merritt Station Area Plan project would be significantly smaller (as noted above) that those generated by the Alameda Point Project. And implementation of City of Oakland SCA-25 and Plan Policy C-58 would reduce the number of trips, but this EIR conservatively assumes that there would be a significant impact to pedestrian Level of Service.

Interim Year 2020

In the interim year 2020, traffic generated by the proposed Plan would degrade the Level of Service (LOS) at four intersections, from LOS E or better to LOS F during the AM or PM peak hours, compared to No Project conditions. This is the threshold used by the City of Oakland to distinguish traffic impacts related to a project from those already projected to occur. LOS would be degraded below this threshold at the intersections of Brush and 12th Streets; Jackson and 6th Streets; Oak and 6th Streets; and Oak and 5th Streets. These are considered significant impacts.

Implementation of proposed mitigation measures involving signal coordination and the Oak Street interconnection system will reduce the impact, but the intersection would still operate at an unacceptable LOS F in the PM peak and therefore remains significant and unavoidable.

No feasible mitigation measures are available that would mitigate the impacts at the intersection of Brush and 12th Streets. The Level of Service can be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort, and at this intersection the cycle length is currently very long (115 seconds). Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of this intersection. Therefore, the impact would remain significant and unavoidable.

To mitigate the impact at the intersection of Jackson & 6th Streets, the EIR identifies a mitigation measure to optimize signal timing for the PM peak hour, and coordinate signal timing changes at this intersection with the adjacent intersections that are in the same signal coordination group. The mitigation measure is able to reduce the impact during the PM to a less than significant level. However, there are no feasible mitigation measures that would reduce the impact during the AM hour. Signal optimization during the AM hour would increase delays at the intersection. The Level of Service can be improved in the AM and PM hours by significantly increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional automobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Therefore, the impact would remain significant and unavoidable even after implementation of the mitigation measure. No secondary impacts would result from implementation of the measure.

For the intersections of Oak and 6th Streets and Oak and 5th Streets, the EIR identifies a mitigation measure to optimize signal timing, and create an interconnected corridor along Oak Street from 5th to 14th streets, and coordinate the signal timing changes at this intersection with the coordination group.After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although the delay is slightly reduced because the intersection would be part of a corridor of coordinated traffic signals, these intersection would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in both the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Cumulative Year 2035

At buildout, traffic generated by the proposed Plan would degrade the LOS at the following City of Oakland intersections from LOS E or better to LOS F during the AM or PM peak hours, compared to No Project 2035 conditions:

- Madison Street at 14th Street;
- Madison Street and 11th Street;
- Madison Street and 10th Street;
- Oak Street and 10th Street;
- Harrison Street and 8th Street;
- Jackson Street and 8th Street;
- Oak Street and 8th Street;
- Jackson Street and 7th Street;
- Oak Street and 7th Street;
- 5th Avenue and 7th/8th Streets;
- Jackson Street and 6th Street;
- Oak Street and 6th Street; and
- Oak Street and 5th Street.

These are considered significant impacts.

Madison Street Intersections

For the intersections of Madison and 14th Streets, Madison and 11th Streets, and Madison and 10th Streets, the EIR identifies a mitigation measure to optimize signal timing, and create an interconnected corridor along Madison Street from 5th to 14th Streets, and coordinate signal timing changes at these intersections with the coordination group.

After implementation of this measure, the coordination of traffic signals on Madison Street would improve traffic flow for vehicles traveling at a uniform speed. Although the delay is slightly reduced because the intersections would be part of a corridor of coordinated traffic signals, these intersections would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersections can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Oak Street Intersections

For the intersections of Oak and 10th Streets; Oak and 11th Streets; Oak and 8th Streets; Oak and 7th Streets; and Oak and 5th Streets, the EIR identifies a mitigation measure to optimize signal timing, and coordinate signal timing changes at these intersections with adjacent intersections that are in the same signal coordination group within the Oak Street interconnect corridor (5th to 14th Streets).

After implementation of this measure, the coordination of traffic signals on Oak Street would improve traffic flow for vehicles traveling at a uniform speed. Although there is an increase in delay (seconds per vehicle) following implementation of the mitigation measure, change in V/C (volume to capacity ratio, a more reliable measure for comparing traffic load and capacity at intersections operating at LOS F) stays the same. Although the V/C remains the same for these intersections, the intent of the mitigation measure is to improve the traffic load and capacity of all the intersections along the interconnected corridor of Oak Street. However, the intersections would still experience high levels of delay, particularly for traffic on the side streets, and impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersections can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible. The Level of Service can also be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort.

Jackson Street at 8th Street

For the intersection of Jackson and 8th Streets, the EIR identifies a mitigation measure to optimize the signal timing for the AM peak hour, and coordinate the signal timing changes at this intersection with the adjacent intersections. There is no feasible mitigation measure for the PM peak hours. For the AM peak hour, after implementation of this measure, although the delay is slightly reduced, this intersection would

still experience high levels of delay. Therefore, impacts remain significant and unavoidable in the AM and PM peak hour conditions. No secondary impacts would result from implementation of the measure.

Traffic operations at the intersection can be further improved by providing additional automobile travel lanes. However, these modifications cannot be accommodated within the existing automobile right-of-way and would require additional right-of-way, and/or loss of on-street parking, and are considered to be infeasible.

Other Impacted Intersections

Harrison & 8th

No feasible mitigation measures are available that would mitigate the impacts at the intersections of Harrison and 8th Streets; Jackson and 7th Streets; 5th Avenue and 7th/8th Streets; or Jackson and 6th Streets. The Level of Service can be improved by increasing the signal cycle length. However, extending the cycle length would require greater wait time for pedestrians to cross intersections, and therefore be in conflict with City policy concerning pedestrian safety and comfort. Level of Service can also be improved by providing additional auto0mobile travel lanes on the affected roadway segments. However, additional travel lanes would require additional right-of-way, and/or loss of bicycle lanes, medians and/or on-street parking or narrowing of existing sidewalks, and are considered to be infeasible. Signal timing changes would not improve the traffic and load capacity of these intersections. Therefore, the impact would remain significant and unavoidable.

AIR QUALITY

Toxic Air Contaminants (TACs)

The TAC analysis is conducted at the plan- and project-level. While the plan-level threshold requiring freeway and high-volume roadways buffers and related policies is addressed in the proposed Plan, project specific impacts related to gaseous TACs cannot reliably be reduced to less than significant through application of City of Oakland SCAs or other feasible mitigation. This finding is reinforced by the recent Plan Bay Area EIR, which concluded that even with mitigation as has now been incorporated in SCA B, future development with sensitive land uses within BAAQMD-recommended distances from potential sources of gaseous TACs may not be sufficient to reduce the impact in all cases. Because of the variety of exposure conditions local to each source and because exposure to gaseous TACs cannot be completely reduced through the use of filters (unlike exposure to particulate TACs), compliance with SCA B would not necessarily ensure that local gaseous TAC exposures could be reduced to acceptable levels. Additional site specific analysis would be needed when a project is proposed in these areas to determine the actual level of impact and if feasible mitigation measures exist for the project to implement to get them below the thresholds. Consequently, individual projects could have significant and unavoidable impacts with respect to exposure to gaseous TACs. Therefore, impacts related to gaseous TACs would be significant and unavoidable.

Odors

While development facilitated by the proposed Station Area Plan would not include new sources of odors, new development under the proposed Plan may expose new residential development to existing odors, affecting a substantial number of people. Based on mapping completed for the Oakland Housing Element

EIR,[1] there is virtually no location within the City of Oakland that is outside of odor buffer areas as defined by the BAAQMD. The entire Planning Area is located within BAAQMD-recommended buffer areas, including one-mile buffer zones around food processing sources located in and near the southern portion of the Planning Area, and within the BAAQMD-recommended one-mile buffer zone of greenwaste/recycling facilities located south and east of the Planning Area. The westernmost portion of the Planning Area is also within the BAAQMD-recommended two-mile buffer zone of the EBMUD Waste Treatment Facility located in West Oakland.

Because there are no feasible mitigation measures identified for reducing the impact of siting receptors near odor sources except for increasing the distance between the receptor and the source (which is not feasible due to the presence of odor sources throughout the Planning Area), and because new residential development proposed under the Station Area Plan is within the recommended odor buffer, the City conservatively assumes that this may result in a significant and unavoidable impact.

Historic Resources

The Planning Area contains 187 properties that appear to meet the City of Oakland's criteria for significant historic resources. Resources include four and two places listed on the National and State Registers, respectively, ten City of Oakland landmark buildings, or sites and 27 other City-designated historic properties. Other historic resources are rated "A" or "B" on the Oakland Cultural Heritage Survey, are potential designated historic properties within City-designated Areas of Primary Importance (API); or are listed on the California Historic Property Directory and given a rating that the City of Oakland considers potentially significant.

Three of these properties are identified as potential development sites under the Station Area Plan:

- Kaiser Auditorium;
- 125 2nd Avenue (OUSD Administration Building); and
- 121 East 11th Street (Ethel Moore Building).

The Kaiser Auditorium is expected to be adaptively reused rather than redeveloped. The two OUSD buildings (125 2nd Avenue and 121 East 11th Street) are potentially B-rated by the OCHS, and should be treated as Local Register properties, according to the City of Oakland.

Existing SCAs and regulations protecting historical resources, together with proposed Plan policies and design guidelines, would mitigate any potential impact of *overall* redevelopment in the Planning Area, but will not be able to reduce the potential impact of demolition of OUSD or County property to a level that is less than significant. The proposed Plan includes an additional mitigation measure to implement Historic Preservation Element policy 3.8, and provides for multiple measures and approaches. Some approaches could reduce impacts to historic resources to a less than significant level, and others could reduce impacts to historic properties, but not to a less than significant level. Only avoidance of direct effects to these structures would reduce the impacts to historic resources to a less than significant level. If demolition or substantial alteration of historically-significant resources is identified by the City as the only feasible option to development in the Planning Area, the impact of development under the proposed

[1] City of Oakland. Housing Element January 1, 2007 – June 20 2014 Draft Environmental Impact Report. August 2010.

Plan would be considered significant and unavoidable. This finding should be viewed as conservative, as it is not certain that historic resources on opportunity sites will be demolished or otherwise impacted.

5.3 Significant Irreversible Environmental Changes

CEQA Guidelines section 15126.2(c) requires that the EIR discuss "significant irreversible environmental changes which would be caused by the proposed project should it be implemented." Generally, a project or proposed Plan would result in significant irreversible environmental changes if:

- The primary impacts and secondary impacts (such as highway improvement which provides access to a previously inaccessible area) would generally commit future generations to similar uses;
- The proposed Plan would involve uses in which irreversible damage could result from any potential environmental accident associated with the proposed Plan;
- The proposed Plan would involve a large commitment of nonrenewable resources; or
- The proposed consumption of resources is not justified (e.g., the proposed Plan involves the wasteful use of energy).

“Nonrenewable resource” refers to the physical features of the natural environment, such as land, waterways, etc. Irretrievable commitments of non-renewable resources associated with the proposed Station Area Plan are described below.

CHANGES WHICH WOULD COMMIT FUTURE GENERATIONS TO SIMILAR USES

The Planning Area is located in an urban area and is developed with existing buildings and infrastructure. Future development within the Planning Area under the proposed Plan would consist of infill and redevelopment of existing buildings and structures, and would not result in significant changes in the overall land use pattern of the Planning Area. In other words, while the proposed Plan supports a heightened emphasis on Transit-Oriented-Development, it does so in the context of an already dense, urban environment. Because the development facilitated by the proposed Plan would occur within an urban area surrounded by similar uses, it would not be the cause of committing future generations to mixed-use urban development land use.

IRREVERSIBLE CHANGES FROM ENVIRONMENTAL ACCIDENTS

Existing and future commercial development projects in the Planning Area may transport, use, or dispose of hazardous materials; and hazardous materials could be accidently released into the environment during these activities. Accidents, such as the release of hazardous materials, may trigger irreversible environmental damage. In most circumstances, the potential risks posed by hazardous materials use and storage are primarily local and, therefore, limited to the immediate vicinity of such use. Moreover, the transport, use, and disposal of hazardous materials are heavily regulated. Compliance with existing federal, State, and local laws and regulations that are administered and enforced by the City would reduce risks associated with the routine use, storage, and transportation of hazardous materials in connection to acceptable levels, and would ensure that no significant irreversible changes from accidental releases would occur.

COMMITMENT/CONSUMPTION OF NON-RENEWABLE RESOURCES

Implementation of the proposed Plan could result in the long-term commitment of various resources to urban development. While the proposed Plan itself would not directly entitle or result in any new development, it is reasonably foreseeable that the proposed Plan, which acts as a blueprint for growth and development in the Planning Area over the next 23 years, could result in significant irreversible impacts related to the commitment of non-renewable and/or slowly renewable natural and energy resources, such as:

- ***Air Quality and Greenhouse Gas (GHG) Emissions.*** Increases in vehicle trips and traffic resulting from implementation of the proposed Station Area Plan would potentially contribute to GHG emissions and long-term degradation of air quality and atmospheric conditions in the region, other parts of California, and the Western United States. However, technological improvements in automobiles, as well as commercial and industrial machinery. This may increase the risk of irreversible effects related to climate change and lower the rate of air quality degradation in the coming decades.
- ***Water Consumption.*** To the extent that the proposed Plan would accommodate new population and jobs, it would increase the demand for water and place a greater burden on the East Bay Municipal Utilities District's (EBMUD's) water supply. While additional residents and workers would use more water, the District is expected to have adequate water to meet demand in normal and wet years in 2040, while in dry years a Drought Management Program would be incorporated to ensure adequate supply, making the potential impact less than significant, as described in Chapter 3. Despite the change in demand resulting from the Station Area Plan being marginal, the increase would represent an irreversible environmental change, as use of this resource would increase.
- ***Energy Sources.*** Residential and non-residential developments use electricity, natural gas, and petroleum products for lighting, heating, and other indoor and outdoor power demands, while cars use both oil and gas. New development under the proposed Plan would result in increased energy use for the construction and operation of new buildings and for transportation. This new development would therefore result in an overall increased use of both renewable and nonrenewable energy resources. To the extent that new development uses more nonrenewable energy sources, this would represent an irreversible environmental change.
- ***Construction-Related Impacts.*** Irreversible environmental changes could also occur during the course of constructing development projects made possible by the proposed Plan. New construction would result in the consumption of building materials (such as lumber, sand and gravel), natural gas, and electricity, water, and petroleum products to process, transport and build with these materials. Construction equipment running on fossil fuels would be needed for excavation and the shipping of building materials. Due to the non-renewable or slowly renewable nature of these resources, this represents an irretrievable commitment of resources.

Development allowed under the proposed Plan would not necessarily result in the inefficient or wasteful use of resources. Compliance with all applicable building codes, as well as existing General Plan policies, SCAs, standard conservation features, and current City programs would ensure that natural resources are conserved to the maximum extent feasible. It is possible that new technologies or systems will emerge, or become more cost-effective or user-friendly, to further reduce the reliance upon non-renewable natural resources. Nonetheless, future activities related to implementation of the proposed Plan could result in the

irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

5.4 Effects Found Not To Be Significant

CEQA requires that an EIR provide a brief statement indicating why various possible significant effects were determined to be not significant and, therefore, not discussed in detail in the EIR (CEQA Guidelines Section 15128). Chapter 3 of this EIR discusses all potential environmental impacts, regardless of their magnitude. Section 3.15: Impacts not Potentially Significant, of this EIR includes a discussion of all environmental resources that would not be significantly affected by the proposed Plan. These include agriculture and forest resources and mineral resources. A summary of all impacts is provided in the Executive Summary of this EIR.

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